Organisational Knowledge and Justification –

A conceptual analysis of the practice-based perspective

By

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Declaration

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the owner of the copyright thereof (unless to the extent explicitly or otherwise stated) and that I have not previously in its entirety or in part submitted it for obtaining any qualification

Date: March 2017

Opsomming

In hierdie navorsing word die praktykgebaseerde benadering tot die regverdiging van organisatoriese kennis ondersoek met die spesifieke doel om by te dra tot 'n konsepsueel duideliker begrip van die teoretiese konstruk van regverdiging op die gebied van Kennisbestuur.

Hoofstuk 1 verskaf 'n konsepsuele agtergrond tot die navorsingsprobleem en posisioneer die navorsing in die konteks van teoretici wat regverdiging benader van 'n praktyk gebaseerde perspektief.

Hoofstuk 2 verskaf 'n gedetailleerde evaluasie van die ontwikkeling van die regverdigingsbegrip in Kennisbestuursteorie en brei uit op die verskille tussen die twee hoofbenaderings tot organisatoriese kennisregverdiging. Ook handel die hoofstuk oor die seleksiekriteria vir die twee praktykgebaseerde regverdigingsteorieë wat in detail bespreek word in hoofstukke 3 en 4.

Die eerste van hierdie bydraes, Georg von Krogh se bestuursregverdigings teorie, word bespreek in Hoofstuk 3 en fokus spesifiek op sy konsepsualisering van regverding in die konteks van autopoiesis, konstruksionisme and dominante logika.

In Hoofstuk 4 word the pluralistiese regverdigingsraamwerk van Frederik Tell uiteengesit teen die agtergrond van epistemologiese pluralisme en die integrasie van uiteenlopende benaderings in die struktuur en proses van regverdiging. In beide hoofstukke word die bydrae van elke teorie oorweeg in verhouding tot die hoof implikasies en beperkinge wat die teoretiese raamwerk verskaf tot die konsep van regverdiging.

Hoofstuk 5 sluit af met die oorkoepelende implikasies van die regverdigingskonstruk uit die perspektief van praktykgebaseerde teorie

Summary

In this research the practice-based approach to the justification of organisational knowledge is investigated with the specific objective to contribute to a conceptually clearer understanding of the theoretical construct of justification in the context of Knowledge Management.

Chapter 1 of the research provides a conceptual background to the research problem and aligns the interest of the research with that of theorists' who approach justification from a practice-based perspective.

The second chapter provides a detailed evaluation of the development of the justification concern in Knowledge Management theory and elaborates on the dissimilarities between the two main approaches to organisational knowledge justification. In addition this chapter elaborates on the selection criteria for the two practice-based justification theories that are considered in detail in Chapters 3 and 4 respectively.

The first of these contributions, Georg von Krogh's managerial justification theory, is discussed in Chapter 3 and pays specific attention to his conceptualisation of justification in the context of autopoiesis, constructionism and dominant logic.

In Chapter 4 the pluralist justification framework proposed by Fredrik Tell is expanded on against the background of epistemological pluralism and the integration of divergent philosophical approaches in the structure and process of justification. In both chapters the contribution from each theory is considered in relation to the main implications and limitations that the theoretical framework provides to the concept of justification.

Chapter 5 concludes on the overall implications of the justification construct when viewed from a practice-based theoretical perspective.

Acknowledgements

My sincerest gratitude to Prof. Kinghorn, my supervisor, for his constant encouragement and insight during the completion of this project

To my darling husband: "*The mind has a thousand eyes, and the heart but one; Yet the light of a whole life dies when love is done*"[1]

This thesis is dedicated to the memory of my father, who taught me that there are no limits to what we are allowed to question

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[1] Francis William Bourdillon

Table of Contents

Abbreviations

CoP	Community of Practice
CR	Critical Rationalism
IM	Information Management
IT	Information Technology
JTB	Justified True Belief
KCC	Knowledge Creating Company
KCE	Knowledge Claim Evaluation
KE	Knowledge Economy
KM	Knowledge Management
KS	Knowledge Society

Chapter 1

Introduction

". . . knowledge is a deeply puzzling concept. It appears in many guises and attempts to manage it gives rise to many special difficulties. We do not escape these just by adopting some of the arbitrary definitions of data, information, skill, knowledge, and wisdom that get stirred into the KM literature. Nor are we likely to find universal solutions, independent of the specific kinds of knowledge being considered."

J.C. Spender 2006: 239

1.1   Background to the research problem

In the preface to the 2002 edition of the Oxford Handbook of Epistemology, Paul Moser remarks that "*Epistemology, also known as the theory of knowledge, will flourish as long as we deem knowledge valuable . . . it's hard to imagine a stable person, let alone a stable society, indifferent to the **real difference** between genuine knowledge and mere opinion, even mere true opinion*."[2] In reading Moser's comment in the context of knowledge management (KM), two phrases are of particular interest. Firstly, the proliferation of theories and practices relating to KM, as well as the generally accepted *raison d'être* for KM's existence – the *value* of knowledge in the 21st century – suggests that in the age of the knowledge economy (KE), knowledge is arguably now valued more than ever before. Secondly, and from the point of view of this research more interesting, is Moser's observation that the value placed on knowledge should stimulate interest in the difference between knowledge and non-knowledge.

In KM theory, arguments drawing on the value of knowledge and the importance of the distinction between knowledge and opinion, is evident among authors engaging with the subject of knowledge from an epistemological or philosophical point of view. Illustrating this, Schreyögg and Geiger for example write that "*If knowledge is supposed to build a*

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[2] Moser, P.K. 2002: viii. **Emphasis added**

distinguishing element with a high value for both organizations and societies, it has to be conceived in terms of distinctiveness."[3] This notion of distinctiveness, or difference, in epistemology draws on the idea that specific criteria exist to which a knowledge claim must adhere in order for it to represent knowledge. [4] Amongst the criteria that have to be met, epistemology prescribes that knowledge meets certain requirements for a claim to be justified, a process described by Mingers as providing " . . . *some evidence justifying the claim . . .*".[5] Authors such as Mingers and Schreyögg and Geiger, align KM theory with the epistemological position that there is a necessity to *prescribe* the standards to which knowledge claims must adhere, to be considered knowledge. This is, as explained by Seirafi,[6] a concern with the correctness, or quality, of knowledge. Scholars working in this frame of reference therefore concern themselves with the identification of criteria that should result in a given claim, or belief, being accepted as knowledge. The purpose of such criteria is to uphold predetermined standards that allow for the universal acceptability of knowledge.[7] From this perspective, engagement with justification is necessary as a result of the conceptual diversity in the knowledge construct and the lack of epistemic criteria in defining knowledge in KM. While various authors express this concern in different ways, the underlying intention is that the knowledge construct in KM has to be delimited and that the means to do so is, amongst others, represented in the epistemic standards of justification. The solution here is therefore one which proposes that no claim to knowledge can be accepted as knowledge unless it has passed certain epistemological criteria that justify the belief and distinguish "superior" from "inferior" knowledge.[8]

A second approach in KM theory takes a different position with regards to epistemology and as a result reinterprets the justification concern. Exemplifying this approach Tsoukas, in his 2005 publication, *Complex Knowledge*,[9] argues that an increasing concern with knowledge in modern day organisations has resulted in the traditional philosophical concern of epistemology gaining increasing relevance to both the theory and practice of organisations. For Tsoukas the

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[3] Schreyögg, G. and Geiger, D: 2007: 81

[4] Seirafi, K. 2012: 126

[5] Mingers, J. 2008: 68

[6] Seirafi, K. 2012: 154

[7] Seirafi, K. 2012: 148-149

[8] See for example Schreyögg, D. and Geiger. G. 2007; Seirafi, K. 2012

[9] Tsoukas, H. 2005: chapter 1

significance of epistemology to KM results, amongst others, from the increasing recognition of the value derived from viewing organisations through the perspective of knowledge, while simultaneously suggesting fields of inquiry that are pertinent to the KM discipline.[10] While Tsoukas therefore acknowledges the contribution of epistemology to KM, he positions this in the realm of shared interest in the subject of knowledge, rather than a shared interest in prescribing what knowledge should be.[11] Importantly, Tsoukas' argument results in a reinterpretation of justification as an inquiry addressing such questions as "*How are knowledge claims justified and legitimated within organizations? . . .* [And] *it is also important to look at organizations from 'outside' to explore how the knowledge claims they make are justified to external audiences, with what effects.*"[12] Tsoukas' approach, which is based on the view of knowledge as constructed and situated in practice, therefore does not approach validation with the same concerns underlying normative approaches. Instead, his interest in justification stems from the desire to further KM's theoretical understanding of the concept as central to the process of knowledge construction.[13] The objective here is therefore much more pragmatic: justification of organisational knowledge needs to be *understood* as part of the *process* through which knowledge becomes accepted. In this sense, theories sharing this practice-based view of knowledge, position justification in KM as an open question, rather than a solution. Authors aim to understand how justification takes place, how this impacts organisational knowledge and which factors impact the validation process.[14]

1.2   Rationale and problem statement

Irrespective of the approach one follows, authors across the above-mentioned divide agree that the justification of organisational knowledge as a concern in KM is an under-researched topic.

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[10] Tsoukas, H. 2005: 11-12

[11] Tsoukas, H. 2005: 10-11 "It is not only organizational and management researchers who, as professional enquirers, are concerned with knowledge, but organizational members too, at least if we take a knowledge-based view of organizations. Epistemology is the domain of all those concerned with knowledge, in all its forms. . . . From a knowledge-based perspective, questions of epistemology . . . are no longer the prerogative of philosophers and social scientists alone but of organizations too. If we see epistemology in Bateson's sense (1979:246), namely as a branch of science concerned with 'the study of how particular organisms or aggregates of organisms know, think and decide' . . . it makes good sense to want to study how organizations construct, process and justify knowledge . . ."

[12] Tsoukas, H. 2005: 11 - 12

[13] Compare for example Tsoukas, H. and Mylonopoulos, N. 2004: s2-s3

[14] See e.g. von Krogh. G., and Grand, S. 2000: 14-15 and Tsoukas, H. and Mylonopoulos, N. 2004

Here Tsoukas[15] and Mingers[16] for example emphasize a lack of engagement with foundational issues relating to knowledge in KM, resulting in insufficient theory development concerning the creation of knowledge and the distinctions applicable to knowledge. Firestone[17] locates the lack of theory development in a number of (in his view) erroneous assumptions in KM theory, which effectively limit the depth and scope of engagement with concerns related to justification.

Given the agreement between both normative and practice-based KM theorists on the apparent lack of engagement with the justification concern, the more fundamental question is then which avenue of inquiry into this topic is pursued? Following a normative epistemological approach, the purpose of studying justification is restricted to prescribing criteria to be followed in the creation of knowledge. The contrary proposal is that justification is conceptualised in the context of understanding organisational knowledge construction.

As a theoretical inquiry, consideration ultimately must be given to the advancement of the discipline of KM. Therefore, taking cognisance of Spender's advice that "*to get closer to KM's current nature and value, we need first to understand how it relates to established practices, things managers and firms do already,*"[18] this thesis conducted an inquiry into the practice-based view of organisational knowledge justification. While this was by no means intended as an outright rejection of the normative approach, it does imply that the thesis assumed that the discipline will benefit from an understanding of the concept and role of validation in practice-based KM theories.

Against this background and rationale, the thesis aimed to contribute to a conceptually clearer understanding of the concept of justification as represented in practice-based KM theory. In order to achieve this, the investigation took the form of an evaluative literature analysis of two practice-based justification theories, namely von Krogh's theory of managerial justification

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[15] Tsoukas, H. and Mylonopoulos, N. 2004: S2 "accounting for how organizational knowledge is established in the first place remains relatively unexplored. It is one thing to take knowledge for granted . . . and quite another to explore questions regarding the social practices in organization through which what is regarded as 'knowledge' attains this status, with what effects. . . . While it is important to study how knowledge assets develop over time . . . and how they impact corporate performance . . ., it is also important to do more foundational work by exploring how knowledge is constructed in the first place . . ."

[16] Mingers, J. 2008: 65 "It is interesting and perhaps indicative of the field that there is almost no discussion at all, within the KM literature, of the problems of truth or warrantability. The assumption seems to be made that either knowledge is no different from any other cognitive category such as thought or belief, or that determining whether something is or is not knowledge is outside of the scope for KM."

[17] Firestone, J. 2004

[18] Spender, J.C. 2006: 239

and Tell's pluralist justification framework. The selection of these theories was delimited by the following three factors represented in both approaches:

a) An emphasis on practice as a core component of organisational knowledge

b) An express and significant theoretical contribution to the understanding of justification of organisational knowledge by focussing on processes, criteria or influences in the legitimisation of knowledge in the context of organisations

c) A primary focus on understanding knowledge validation from an organisational or managerial rather than research practitioner's or theorist's point of view

1.3   Research aims

Within the framework of the problem statement, the research aims addressed in this thesis were as follows:

Research Aim 1:   Contribute to a conceptually clearer understanding of the knowledge justification debate in KM

    Objective 1.1:   A theoretical investigation into the historical development of the justification concern in organisational KM

    Objective 1.2:   Identification of the core differences between practice-based and normative justification approaches

Research Aim 2:   Conceptually clarify the contributions of respectively von Krogh and Tell to practice-based theorising in the field of organisational knowledge validation

    Objective 2.1   A critical description of each of the main theories

    Objective 2.2   An analysis of the underlying assumptions in each theory

    Objective 2.3   An evaluation of the limitations and implications of each theory

Research Aim 3:   Based on research aims 2 and 3 to provide a tentative conceptual summary of the construct of justification from a practice-based view.

1.4   Assumptions and limitations

Following from the delimitation of the research problem, the methodology and the theoretical framework employed, the thesis is subject to specific limitations and assumptions which impose certain constraints on the investigation and resulting findings.

a) The conceptual evaluation was not an attempt to arrive at a normative view of validation in KM. Nor did it represent an engagement with the debate concerning the nature of organisational epistemology.

b) As a conceptual approach, the thesis did not attempt to offer empirical proof or testing of the accuracy or validity of the theories that were evaluated.

c) The theoretical approaches to knowledge validation were limited to academic work published in English in publicly available sources at the time of conducting the research. This included a limited number of practice-based theories in KM that concern themselves with justification and the absence of current research that reviews the contribution to an understanding of validation from these theories in their own right.[19]

d) By virtue of its inclusion criteria, the project purposefully excluded theoretical contributions that are mainly aimed at stimulating debate regarding the validity of knowledge created by organisational researchers and theorists in the field of KM.[20]

1.5 Outline of the investigation

Chapter 1 provides an overview of the background to the problem from which the rationale, problem statement and objectives were derived. It further sets out the methodology, limitations and assumptions underlying the research project.

Chapter 2 provides a detailed overview of the developments in KM against which the justification concern in KM is contextualised. This discussion firstly clarifies the relationship between epistemology and KM, while positioning the justification debate in the discipline in this context. Given the extent to which the latter is intertwined with the development of the knowledge construct in KM, the discussion then turns to the perceived problem of validation, or absence thereof, through the main phases of the KM discourse. Thereafter the discussion focusses on a detailed description of the normative approach that concerns itself with the problem of justification. This section furthermore explores the underlying concern in this research that normative approaches to the justification problem alone would deprive KM of valuable alternative views. Further elaboration on the former argument is presented in the final section of Chapter 2, which discusses the conceptualisation of knowledge and justification in

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[19] Note this is in contrast to research that evaluates practice-based theories of justification as insufficiently normative

[20] As discussed by Tsoukas (2005), epistemology and questions concerning the justification of knowledge are relevant not only in the context of organisation in KM, but also to the justification of theories and research findings among organisational researchers and theorists

practice-based theory and contrasts this with the implications of a normative approach. This chapter concludes with the identification of the theoretical contributions of von Krogh and Tell and contextualises these against the background of practice-based justification theory.

Chapter 3 deals specifically with the approach to justification in the paradigm of the Knowledge Creating Company as refined by von Krogh in the theory of managerial justification. The chapter starts with the theoretical basis of von Krogh's conceptualisation of knowledge and truth, before engaging in a detailed discussion of his contribution to practice-based justification theory. This theoretical contribution is then critically evaluated in light of its implications and limitations.

In chapter 4, following a brief overview of Tell's conceptualisation of knowledge and truth, his proposal for a pluralist justification framework is discussed. This discussion is presented in three main parts considering the structure of Tell's framework, the resulting knowledge ideal types and justification contexts, and the interaction between these. The final section of Chapter 4 evaluates the contribution of this theory in light of its implications and limitations for the practice-based view of justification.

Chapter 5 concludes the research investigation by presenting, and elaborating on, seven core conclusions drawn from the research. This chapter concludes by offering some tentative remarks on the nature of justification based on the findings presented in the research.

Chapter 2

Development of the justification concern in KM theory

2.1 Introduction

The development of the justification concern in Knowledge Management (KM) is, on one hand, conceptually situated in the progression of the knowledge definition discourse in the discipline, and, on the other, in the broader epistemological debate concerning knowledge from both a philosophical and social sciences point of view. In this regard, debates regarding the justification of knowledge are subcategories of the overarching debates in KM and epistemology, which concern themselves with the nature of knowledge as the object of inquiry. To understand the epistemological background, this chapter starts with a brief overview of epistemology, and through this delineates the primary approaches to the validation concern influencing KM. The progression of the knowledge construct debate, and the resulting influence on theories of validation, is then elaborated on against the background of three distinctive phases in KM.[21]

The first phase is characterised by the initial view of knowledge as an unproblematic concept based on the information management paradigm. The development of the second phase represents, in part, a reaction against this simplistic notion of knowledge, and originated with Nonaka's neo-functionalist proposal on the Knowledge Creating Company.[22] The current phase followed Nonaka's 1995 publication and saw the increasing acknowledgement of knowledge as a problematic or complex construct. As it is specifically during the latter phase

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[21] This approach draws on Dave Snowden's (2002) conceptualisation of the three ages of KM

[22] There were other authors who challenged Cartesian notions of knowledge long before Nonaka's original publications, but these theories focussed more generally on the knowledge society, knowledge economy and knowledge work. Noteworthy contributions include the various authors published in the 1993 November edition of the Journal of Management studies

that the wider concern with validation emerges, the discussion here turns to the two dominant approaches to validation, namely normative and practice-based approaches.

2.2   Epistemology and the nature of knowledge

The classical analysis of knowledge in epistemology departs from the argument that, for knowledge to exist, three conditions have to be met: knowledge has to consist of a belief, which is true and for which evidence or warrant can be provided.[23] The component of justification relates to the latter condition, and from an epistemological point of view represents an approach to the question of "*what would constitute proper justification for a belief?*"[24] In prescribing a method for arriving at warrant, justification in epistemology is normative, i.e. it proposes the one best method on which justification should be based.[25] Of importance in this traditional analysis of knowledge, is that epistemology is concerned with the knowledge of the individual (the belief aspect), and consequently the requirements for an individual to possess justified true belief.[26]

Although sharing KM's concern with knowledge as a subject matter, epistemology's traditional concern results in the argument that it is limited in its direct application to KM. In this regard Maasdorp[27] for example refers to a "*conceptual and contextual shift*" in the meaning of knowledge in KM. Contextually KM is concerned with knowledge as found in organisational settings, resulting in the concept of knowledge being reinterpreted in the context of subjectivity and action. The resulting outcome is that the objectives of KM, in contrast to those of epistemology, are much more pragmatic. They include, amongst others, the problems of locating, processing, creating, using and sharing knowledge, compared to epistemology's objective of providing a universal theory of knowledge that prescribes the conditions under which knowledge can be said to exist.[28] These pragmatic concerns also influence theory in KM concerning the legitimisation or warrant of organisational knowledge. Here epistemology's traditional proposal, that knowledge represents justified true belief, is for example considered too restrictive for understanding the decisions that inform the actions taken by organisations.[29]

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[23] Crumley, J. S. 2009: chapter 2 and Mingers, J. 2008: 66

[24] Mingers, J. 2008: 66

[25] Crumley, J.S. 2009: 63

[26] Aarons, J. 2006: 166

[27] Maasdorp, C. 2001:04

[28] Maasdorp, C. 2001:04 and Aarons, J. 2006: 167

[29] Boisot, M. and MacMillan, I.C. 2004:504

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Although the classical analysis of knowledge is conceptually much more limited than the knowledge of concern in KM theory, there is equally recognition that the questions asked by epistemology remain of importance and interest to the discipline of KM.[30] One proposal in relation to the value that KM can derive from epistemology, is the argument that knowledge, irrespective of how it is conceived of (i.e. justified true belief or the capacity to act), is still subject to adhering to certain agreed standards.[31] These standards, however, through challenges posed to philosophy from within and outside of the discipline, have been substantively redefined in relation to both justification and truth. While traditional epistemology assumes truth as representing correspondence to an external reality, this notion has been disputed by, amongst others, coherence theories of truth, which argue that truth is determined by the degree of coherence of a belief with other beliefs, and pragmatic theories of truth which propose that truth be judged by its practical value.[32] Furthermore, debates centring on the possibility that knowledge can be infallibly true have given rise to arguments, in the philosophies of science and language, that, while truth exists, knowledge should always be considered fallible.[33] Thus, philosophers such as Popper and Habermas maintain that knowledge is never absolute or final.[34] In as much as these theories question the certainty of knowledge, they also propose a reconceptualisation of justification compared to the traditional reliance on cognitive rationality. Popper for example rejected the idea of justification, and instead proposed that knowledge claims should be subject to criticism in order to evaluate their veracity.[35] Habermas proposed that justification must always take place in discourse and that rationality must prevail in deciding on the better argument to support a given knowledge claim.[36]

In as much as the critical approaches proposed by Habermas and Popper reconceptualise the traditional concerns of epistemology, their resulting alternative theories retain philosophy's

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[30] Boisot, M. and MacMillan, I.C. 2004. and Aarons, J. 2006

[31] Aarons, 2006: 167: "The standard approach in epistemology may be too limited and too narrow for KM, but it also is not totally irrelevant. At its foundation the KM conception of knowledge should at least be compatible with the epistemological definition, since even thought [sic] the disciplines have different interest in the concept, at its base it is still essentially the same idea. Factual, tacit, practical, technical, and other forms of knowledge must still all meet certain criteria in order to be genuine knowledge . . . Although precisely what it takes to meet these criteria is the topic of vigorous debate, it is clear that genuine knowledge must have some standards."

[32] Mingers, J. 2008: 66- 67

[33] Firestone, J.M. and McElroy, M.W. 2003: 10

[34] Mingers, J. 2008

[35] Firestone, J.M. and McElroy, M.W. 2003: 04

[36] Mingers, J. 2008: 66

normative concerns. A second development in epistemology, which has spilled over into theories of knowledge in sociology, concerns a challenge to the normative approach taken to knowledge in philosophy.[37] In this regard philosophers such as Quine[38] proposed that the normative epistemic concern of traditional epistemology be discarded in favour of an empirical understanding of why human beliefs form, and how knowledge results from external experience.[39] This argument, for the naturalisation of epistemology, has variously been interpreted as repositioning epistemology toward pragmatism;[40] providing support for the proposal that non-logical factors play a role in the creation of knowledge;[41] and that an understanding of knowledge cannot be attained in isolation of its context.[42] In relation to justification, Boisot and MacMillan[43] observe that naturalisation results in the reframing of the concern with the validity of knowledge away from logic and reliability, to focus on social agreement. Here, rather than emphasizing the need to demarcate knowledge as representative of truth, there is a concern with the relationship between action and knowledge, which supports the survival and prosperity of a knowing agent. Additionally, the authors argue that the naturalisation of epistemology has led to acknowledgement of the co-existence of multiple epistemologies that represent valid knowledge under differing circumstances. In the context of the knowledge society, Knorr Cetina describes justification through the concept of consensus formation, as involving processes of decision making which evaluate validity and pragmatic value. As a process, this reframes justification in relation to agreement and acceptance by a specific community.[44] Rather than conceiving of justification in this sense as an objective and detached endeavour, consensus formation is viewed as contingent upon context and influenced by "*non-epistemic factors*".[45] Underlying these views of justification is the central tenet that knowledge in practice cannot be adequately understood through prescribing how knowledge

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[37] This argument draws on observations by Knorr Cetina, K. and Mulkay, M. 1983: 2 - 4

[38] Quine's proposal is based on the argument of the underdetermination of theory by data, which essentially holds that theoretical choice in scientific knowledge is insufficiently explained by the data invoked to support the theory (see Knorr-Cetina, K. and Mulkay, M. 1983: 03)

[39] Freedman, K.L. 2001: 12 & 30

[40] Boisot, M. and MacMillan, I.C. 2004: 522

[41] Knorr Cetina, K. and Mulkay, M. 1983: 4

[42] Freedman, K.L. 2001: ii

[43] Boisot, M. and MacMillan, I.C. 2004: 521-522

[44] Knorr Cetina, K. 2010: 176

[45] Knorr Cetina, K. 2010: 176

ought to be justified, as practice indicates that the process of validating knowledge does not follow the philosophical ideal of a unitary approach to validation.[46]

The foregoing discussion serves to highlight two issues of importance for this research. On one hand it illustrates briefly how this thesis conceives of the main distinction in approaches to justification in KM, while on the other, it provides a background for broadly conceptualising the notion of justification in KM. In both instances the justification concern involves a decision concerning the validity of knowledge. The difference in approaches results from how the decision process is viewed. Where the philosophical concern is afforded primacy, the process relates to how the decision that *something* is knowledge *should* be taken.[47] Validation in this context therefore becomes a matter of specifying rules or processes for justification which have to be followed in order to create knowledge. On the other hand, where authors side with the view that challenges normativity, the process of taking a decision is a question of *how* the decision is made, rather than how it should be made. In this sense justification of organisational knowledge becomes a decision on the validity of knowledge that is determined in practice,[48] rather than the result of following prescriptive proposals on how knowledge should be created in an essentialist manner.[49]

2.3   The knowledge discourse in KM

The conceptualisation of knowledge in KM provides the basis for how scholars and practitioners research knowledge; propose to manage knowledge; locate knowledge in an organisational setting; delimit knowledge; report on knowledge; measure knowledge; and propose to create and share knowledge.[50] As such, how knowledge is defined determines if, and how, validation concerns are raised and addressed in KM theory. Through this process the

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[46] See for example Knorr Cetina, K. 1999

[47] Seirafi, K. 2012: 146: "What makes knowledge to knowledge is not only that it is created and applied, but also that it is more than mere belief (or more than just a proposition, or more than just a narrative, etc.). . . . From its outset, Western epistemology has always been in search of normative criteria of knowledge, i.e. what *something has to fulfil* in order to be valid knowledge." *Emphasis added*

[48] Compare Boisot, M. and MacMillan, I.C. 2004: 507: "Epistemology, however, is not physics. Its principles and its application will vary according to time and place. There is therefore a need to identify the different circumstances – social, technological, economic, etc [sic] – in which knowledge is considered valid and actionable."

[49] Compare Hecker, A. 2012: 425

[50] Alavi, M. and Leidner, D. E. 2001; Baskerville, R. and Dulipovici, A. 2006

development of the justification debate in KM is conceptually underpinned by fundamental shifts in the definition of knowledge.[51]

While taxonomies of KM phases and discourses abound,[52] the basic underlying conceptual break in the characterisation of knowledge can be viewed as the distinction between knowledge as either unproblematic or problematic.[53] Theoretically the knowledge construct is considered unproblematic where authors adopt a rational and positivist approach to knowledge. Here, the problem of managing knowledge is narrowly defined as solving issues concerning the absence of knowledge. Approaches in this paradigm generally conform to mainstream KM's emphasis on managing the availability of organisational knowledge through KM systems aimed at optimising knowledge processes, to ensure the seamless availability of knowledge.[54] In contrast, theoretical approaches that view knowledge as inherently problematic recognise the limits of Cartesian rationalism and positivism in relation to organisational KM.[55] In this sense, these theories problematize the concept of knowledge in KM. As knowledge is no longer accepted as an unproblematically existing phenomenon in organisations, theories in this frame of reference focus on understanding how organisational knowledge is created.[56]

As argued above, definitional assumptions have significant implications for the resultant KM theory; however, for purposes of this discussion, these implications are limited to the consequential objectives of KM in as far as this influences the role allocated to epistemology and validation in the proposed KM theory. Following this line of argument, a distinction is

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[51] The conceptual outline of this paragraph draws on the work of Firestone, J.M. and McElroy, M.W. 2002, as well as that of Koenig, M. 2002

[52] Compare Firestone, J.M. and McElroy M.W. 2002, Koenig, M. 2002, Snowden, D. 2002, Kakabadse, N.K., Kakabadse, A. and Kouzmin, A. 2003 and Baskerville, R and Dulipovici, A. 2006

[53] See Spender, J.C. and Scherer, A.G. 2007:11: "One of its paradoxes is that KM is only separable from existing disciplines such as microeconomics and organization theory when it treats knowledge itself as problematic. It get is traction from admitting we do not know what knowledge is, so demanding we think about the ways managers and organizations respond to these doubts. Out normal theorizing, especially the positivistic tradition, regards knowledge as problematic only in its absence."

[54] Compare Snowden, D. 2002: 100-101 as well as Firestone, J.M. and McElroy, M.W. 2002:08

[55] See Spender, J.C. and Scherer, A.G. 2007: 14-15: "In short KM's real agenda spins around problematizing the most commonly assumed aspect of our concept of knowledge, that of rationality itself. . . . While rationality is obviously incredibly important to managers and theorists alike, it is simply incapable of grasping organizational practice adequately. Thus KM's foundational notion of an unreasoned but nonetheless proficient form of practice, such as 'flow' (Czikszentmihalyi, 1988), takes us beyond perfect rationality and brings it back from pure abstraction and into the real world."

[56] Compare Snowden, D. 2002: 101 and Firestone, J.M. and McElroy, M.W. 2002: 09

drawn between three phases of KM theory characterising the problematization of the knowledge construct. Each of these phases are discussed in more detail below.

2.4 Mainstream KM

Mainstream KM has its roots in Information Management (IM) and to a large degree reflects initial attempts at repackaging existing information systems to deal with the growing recognition of knowledge as a primary organisational resource in the Knowledge Economy.[57] While the KM discourse chronologically originates with this view, the conceptual nature of knowledge in this paradigm is secondary to the functional concern of managing knowledge.[58] This is illustrated by Firestone and McElroy's argument that, where KM is primarily viewed as a managerial activity, its main challenge is contextualised as a management task of how to capture, store and disseminate knowledge.[59] This task takes precedence over a conceptual understanding of knowledge. KM's focus is on the provision of access to data and information so that knowledge can be created outside of its domain of concern.[60] Access in this context closely links KM to information technology (IT) as an enabler of knowledge dissemination.[61]

2.4.1 Knowledge as an existing asset to be *managed*

In the mainstream view knowledge is assumed to exist either as explicit knowledge stocks or identifiable knowledge flows. As a stock, knowledge is disembodied and viewed as an asset that can be captured and modelled through increasingly sophisticated computing systems. As a flow, organisational knowledge is regarded as the connection between information repositories and knowledge users.[62] Underlying both approaches is the assumption that knowledge can be codified, and represents an unproblematic construct either resulting from data and information,[63] or pre-existing in knowledge resources which are subject to organisational management.[64]

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[57] Tuomi, I. 2002: 02 – 04. Note that while Tuomi draws a distinction between Information Systems and Business Intelligence for the purposes of this research these two phases of KM are treated as one based on the reliance they place on computing to enable KM

[58] Compare Firestone, J.M. and McElroy, M.W. 2002

[59] Firestone J.M. and McElroy, M.W. 2002: 08

[60] Kakabadse, N.K., Kakabadse, A. and Kouzmin, A. 2003: 77

[61] Wiig, K.M. 1997: 8 - 10

[62] Tuomi, I. 2002: 04

[63] Butler, T. 2003: 153

[64] Styhre, A. 2003: 34

In the first instance, the object to be managed by KM is quantifiable, and an outcome that results from transformation processes applied to data and information. Typifying this approach, Grover and Davenport[65] define knowledge in the context of a continuum that starts with data, which is transformed through largely mechanistic processes to information and finally converted (through less mechanistic processes) to knowledge. The transformation process from data to information involves the application of data in a specific context, which in turn determines the value of information. Knowledge is created from data in context (information) when it is applied to a specific problem context, in the human mind. This process of application, which transforms information to knowledge, involves cognitive activities such as interpretation and bringing individual experience to bear on information.

The second view of knowledge as an unproblematic construct is evident in Terret's[66] approach to emphasizing the practical concerns of knowledge in an organisational context. The underlying assumption is that knowledge assets exist irrespective of what knowledge may comprise, or how it is different from data or information. For Terret, the objective of KM is to concern itself with managing knowledge assets which exist in one of three locations: codified in documents; represented in processes that define procedures; or as cognition inside "*people's heads*". KM as a strategy then concerns itself with "*getting as much out of people's heads into other people's heads and/or into the corporate knowledge bank*".[67]

Given the focus on managing knowledge through IT, the representation of the knowledge construct in mainstream KM draws on three basic assumptions. Firstly, knowledge originates from, and is therefore inseparable from, data. Knowledge in this sense is constructed from a raw resource (data) to which meaning (information) and interpretation is added.[68] As the basis for knowledge, data is value-free as it represents "objective facts" that contain neither judgement nor interpretation.[69] Knowledge, therefore, is ultimately based on the interpretation of an objective representation of reality.[70]

Secondly, knowledge is cognitively possessed by individuals. This is clearly illustrated in Terret's assertion above that knowledge exists inside "*people's heads,*" as well as Davenport

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[65] Grover, V. and Davenport. T.H. 2001: 06- 07

[66] Terret, A. 1998

[67] Terret, A. 1998:70

[68] Tuomi, I. 1999:104

[69] Davenport, T.H. and Prusak, L. 1998: 02-03

[70] Tuomi, I. 1999:105

and Prusak's notion that "*knowledge derives from minds at work*".[71] This cognitive view however also implies that individuals own knowledge, and in mainstream KM this possession represents a potentially valuable resource to the organisation. In both instances discussed above, the ability of organisations to extract and sell this resource represents an important benefit to be derived from KM.[72]

The foregoing assumption, that knowledge is owned, also informs the third assumption underlying the knowledge construct, namely that knowledge exists as an independent entity. While Davenport and Grover view the process of converting information to knowledge as tied to humans and specific to context, knowledge as an asset in organisations is resolutely entitative as it is separable from both knower and context.[73]

As will be discussed below, these principle assumptions of the mainstream KM construct have been heavily criticised for a number of reasons. However the attractiveness of this view to KM theory is clear when considering that, if the problem at hand is to manage knowledge as a resource, it can be achieved much more economically through a reductionist view of the object of KM.[74]

2.4.2   The validation concern in mainstream KM

In mainstream KM, validation as a concern closely aligns to both the unproblematic conceptualisation that characterises knowledge, and the centrality of the IM paradigm as defining of the objective of KM. In the first instance, the question of the validation of knowledge is irrelevant precisely because knowledge is considered to already be in existence and, by implication, the process of validation must then have occurred outside of the scope of KM. This argument is illustrated in Bell's definition of knowledge as purely that which is

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[71] Davenport, T.H. and Prusak, L. 1998: 05

[72] Compare Swan, J. and Scarborough, H. 2001

[73] Davenport, T.H. and Grover, V. 2001: 15: "An inherent source of inefficiency in this [knowledge] market is the difficulty in assessing the value of knowledge. As knowledge assets evolve through generation, codification, and realization, their uncertainty is reduced and their source of value is easier to see. Therefore, while knowledge in the generation stage (or a knowledge creator) might have tremendous potential for value, its uncertainty reduces the present value of the future returns from the asset. Knowledge in the codification stage (if explicit) is visible to customers and somewhat easier to assess. The value of knowledge in the transfer and realization stages might be the most tangible since its value is based on visible products and services that it can create."

[74] Styhre, A. 2003:34

objectified, and through this process of objectification already contains the basis of its warrant.[75]

Where validation is not a concern, the argument of mainstream KM theorists generally relates to the distinction they perceive between epistemology and KM. Here Davenport and Prusak[76] for example argue that, as epistemology concerns itself with a definitive answer on the nature of knowledge, its concerns are not those of KM. Rather KM should concern itself with a working definition of pragmatic value in terms of understanding what knowledge means in an organisational context and why it is difficult to manage. In similar vein Meindl,[77] while acknowledging that the rationalist approach inherent in the IM paradigm raises certain epistemological limitations, dismisses these in favour of emphasising the practical managerial implications of information support.[78] Peters, Maruster and Jorna[79] locate the reason for this "dismissal" of epistemological concerns, in the dominant role of information technology as the solution to whatever KM problems are encountered. What little attention validation receives in this context is therefore dealt with from a technological point of view.

The latter point is illustrated when considering that validation in the context of knowledge capture is essentially a judgement of the quality of codified resources which may relate to the relevance such resources have to a specific audience;[80] the degree to which the source of information is trusted;[81] and the extent to which certain pre-determined quality standards are met.[82] In this sense, validation in the IM paradigm becomes a problem of governance, related to the quality of codified knowledge contained in an information repository. This follows the so-called "garbage can" analogy of data management, where the quality of knowledge contained in a repository is a function of the quality control exercised during the input process. KM governance in this scenario has the function of determining if validation of knowledge inputs will be required, or if all knowledge inputs will be accepted. Where validation is required

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[75] Alvesson, M. and Karremän, D. 2001: 997: "Bell, for example defined knowledge as 'that which is objectively known, an intellectual property, attached to a name or group of names and certified by copyright or some other form of recognition (e.g. publication).'"

[76] Davenport, T.H. and Prusak, L. 1998:05

[77] Meindl, J.R., Stubbart, C. and Porac, J.F. 1994: 292

[78] Note that this interpretation draws on that of Tuomi, I. 1999: 104

[79] Peters, K., Maruster, L. and Jorna, R. 2010: 246

[80] Markus, M.L. 2001: 79

[81] Alavi, M. and Leidner, D. E. 1999

[82] Durcikova, A. and Gray, P. 2009: 83

inputs are subject to quality reviews by subject matter experts.[83] For mainstream KM, validation in this sense is a function of managing the content of codified resources[84] and ensuring that process design enables the reuse of prior knowledge.[85]

2.5   Neo-functionalist[86] KM

Much of the initial academic interest in KM took issue with the narrow conceptualisation of knowledge and the limitations it imposed on what would be managed through KM.[87] The perceived simplistic view of knowledge, proposed by mainstream KM, as well as its managerial focus, contrasted with the view that knowledge in itself and its creation is beset by complexity.[88] From an academic point of view, the challenge to the mainstream approach largely developed since the 1995 publication of Nonaka and Takeuchi's seminal work on organisational knowledge creation.[89]

2.5.1   Nonaka's challenge to the mainstream view

Nonaka proposed his theory of the knowledge creating company (KCC) as an alternative to the perceived dominance of useful knowledge as quantifiable data and facts in Western management theory. He argued that the dominant mainstream view was at the root of poor innovative capability in Western corporate environments and contrasted this with the broader notion of knowledge in Japanese companies, where innovation is a constant achievement.[90] Resulting from this, the publication of KCC theory represented an important step toward structuring a more encompassing knowledge concept, and proposing a shift in the focus of KM towards knowledge creation.[91] Of specific relevance to this research project is Nonaka's contribution to the problematisation of knowledge through the introduction of the notion of tacit knowledge,[92] as well as the introduction of justification in the process of knowledge

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[83] Durcikova, A. and Gray, P. 2009:83

[84] Offsey, S. 1997:120

[85] Compare Markus, L.M. 2001

[86] The term neo-functionalist, to identify Nonaka's work, is adopted from the work of Schultze, U. and Stabell, C. 2004

[87] It is important here to note that the academic interest in knowledge work, knowledge organizations and the knowledge economy is considered separate from the interest in KM *per se*

[88] Styhre, A. 2003: 33

[89] Snowden, D. 2002:101

[90] Nonaka, I. 1991: 96 - 97

[91] Compare Snowden, D. 2002:101

[92] Nonaka's interpretation of tacit knowledge has attracted significant criticism, nonetheless he has to be credited for introducing the concept to KM

creation. The centrality that Nonaka afforded to justification as part of the knowledge creation process not only introduced the notion of validation to the KM debate, but also positioned the justification process, and the criteria required for justification, outside of the scope of normative epistemology.

Borrowing from Polanyi's criticism of objectivist epistemology,[93] Nonaka's focus on tacit knowledge drew attention to the nature of knowledge as inclusive of highly personal knowledge, inherently related to human action and not resulting from quantifiable data and information.[94] In this frame of reference, the focus of KM was shifted to managing knowledge creation as the outcome of a dynamic process of interaction between tacit and explicit knowledge. This process of interaction is described through a conversion cycle in which each of the two forms of knowledge forms the basis for the creation of the other, as well as the creation of new knowledge of the same form.[95] In contrast to the linear view of knowledge as an outcome, Nonaka proposed, through the above process, a continuous spiral as the underlying structure of knowledge creation. Fundamental to this structure are the interactions between organisational members and an emphasis on non-technological modes of knowledge creation.

In as much as Nonaka is, from the outset, concerned with the requirements of incorporating subjective knowledge into the knowledge construct, he approaches this issue by proposing a reinterpretation of what he considers to be the dominant Western approach to epistemology, defining knowledge as "justified true belief" (JTB).[96] While Nonaka argues that traditionally JTB is associated with explicit knowledge,[97] he rejects this approach and substantively reinterprets the definition.[98] In doing so, Nonaka adopts a pragmatic definition of truth[99] and argues for a relaxation of the truth condition as secondary to the condition of justification.[100] This, for him, further implies that in KCC theory, knowledge therefore no longer takes on the

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[93] Virtanen, I. 2010

[94] Nonaka, I. 1994: 16

[95] Nonaka, I. 1991: 96 & 98

[96] Nonaka, I. 1994: 15

[97] This interpretation by Nonaka is severely criticised by Gueldenberg, S. and Helting, H. 2007 who argue, amongst others, that Nonaka failed to correctly interpret Plato's intention in the *Theaetus* and equated all Western epistemology with Cartesian approaches to knowledge

[98] Nonaka, I. 1994: 15. Note here that the term substantive is used to indicate the degree to which Nonaka deviates from the original intended meaning of JTB rather than the depth of his argument for changing the definition. The latter is criticized by, amongst others, Gourlay, S. and Nurse, A. 2005: 305-306

[99] Nonaka, I. 1994:24. Note however that Nonaka's conceptualisation of truth in pragmatic terms is only really expanded on in a later publication with von Krogh (Nonaka, I. and von Krogh, G. 2009: 639-640)

[100] Nonaka, I. 1994: 15

static Cartesian characteristics of certainty.[101] Knowledge then is not simply the justification of a belief towards absolute truth, but rather "*a dynamic human process of justifying personal beliefs as part of an aspiration for the truth*".[102]

2.5.2   Nonaka's theory of justification in the KCC

Justification in Nonaka's early work is bound to the processes through which individual knowledge becomes organisationally articulated and accepted.[103] In KCC the justification of knowledge, in an organisational context, occurs both informally and formally. Informal justification takes place continuously during the process of knowledge creation, while formal justification occurs through managerial authority.[104]

With regard to informal justification, Nonaka commented in his early work that there are several levels of social interaction that could legitimise individual knowledge. He conceives of one of these sources as a diverse informal community that may include members from outside of the organisation.[105] In a later collaboration with von Krogh,[106] he writes that justification starts during the sharing of tacit knowledge, which requires each individual to justify personally held tacit knowledge in the public and social context of the organisation. He has also conceived of the informal justification process as representing the entire knowledge conversion cycle which acts as a "*social process of validating truth*".[107] Knowledge conversion here is then viewed as facilitating the process of validating subjective personal belief toward objective organisational knowledge, which in turn is subjected to formal justification through the market.[108]

In terms of formal justification, Nonaka's conceptualisation of the organisational knowledge creation process positions justification as a method of convergence in the ongoing cycle of knowledge creation (see figure 2.1). It serves the function of judging the usefulness of created knowledge in an organisational context by considering the "truthfulness" of knowledge against a set of standards or criteria determined by management. Criteria for evaluating knowledge

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[101] Nonaka, I. 1994: 15 and Gueldenberg, S. and Helting, H. 2007: 103 & 104

[102] Nonaka, I. 1994: 15

[103] Nonaka, I. 1994: 21

[104] Nonaka, I. & Takeuchi, H. 1995: 86

[105] Nonaka, I. 1994: 17; For example in Nonaka, I. and Peltrokorpi, V. 2006: 80 "people validate tacit knowledge through social interaction"

[106] von Krogh, G., Ichijo, K. and Nonaka, I. 2000: 16-17

[107] Nonaka, I. and Toyama, R. 2005: 422

[108] Nonaka, I. and Toyama, R. 2005: 422-23

claims can be multi-fold, and Nonaka includes in his examples of such criteria, financial (cost and profitability); functional (organisational growth) and qualitative criteria (alignment with corporate vision and brand image). [109]

Figure 2.1: Nonaka's organizational knowledge creation process

Source: Nonaka, 1994: 27
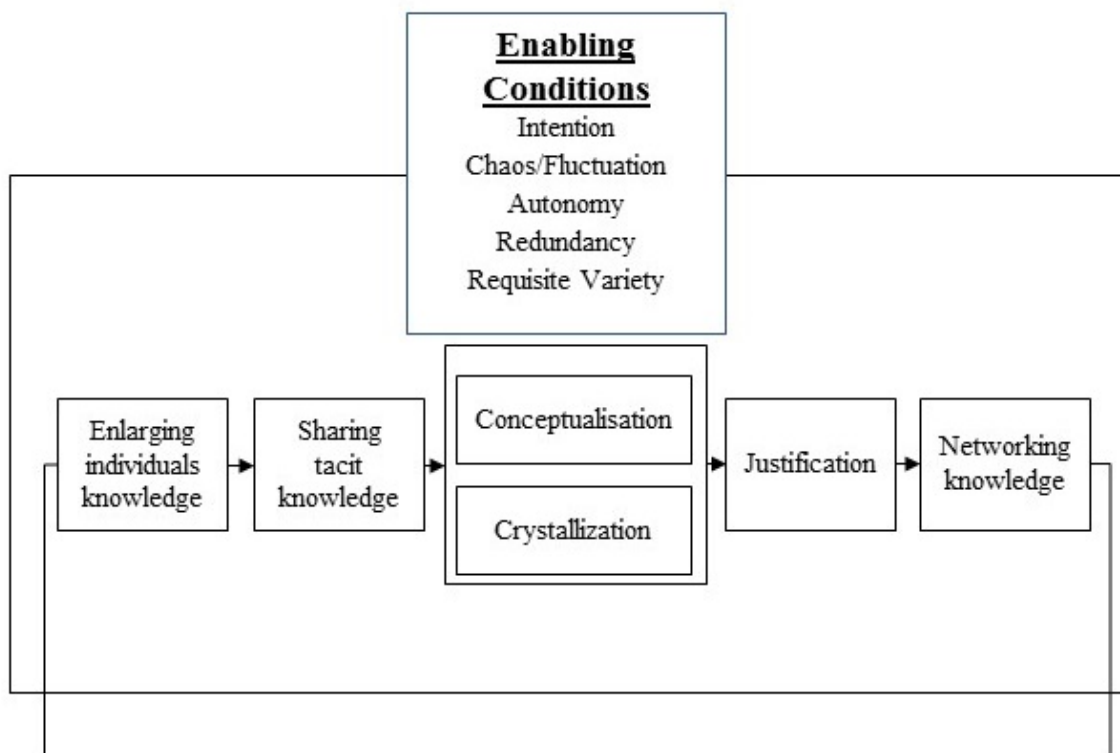
Determining the criteria against which knowledge claims are evaluated is considered by Nonaka to represent a strategic task which requires management to set and evaluate justification criteria against *"higher-order value systems"*.[110] These value systems are conceived of as representing the organisational intention as contained in vision or strategy.[111] It follows from this that justification criteria are determined by what an organisation aims to achieve in the long term, and evaluated in terms of how set criteria would contribute to organisational vision or strategy. Nonaka draws a distinction here between the role of top

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[109] Nonaka, I. 1994: 26. Included among the qualitative criteria is "romanticism, adventure and aesthetics" which appear to relate to brand image values that an organisation may consider in evaluating knowledge

[110] Nonaka, I. 1994: 27

[111] Nonaka, I. & Takeuchi, H. 1995:87

management in determining the organisational value system and the resultant criteria, and middle management as executing against these criteria in the role of mediators between employees' knowledge claims and the organisation's justification standards.[112]

2.6   Knowledge as a complex construct

Post-Nonaka, discourses on organisational knowledge expanded significantly, and in the process the true complexity of knowledge in the organisational context came to the fore. This level of complexity is exemplified in Jakubik's[113] analysis of four themes pertinent to the knowledge construct debate: epistemology, ontology, commodity and community. The complexity in the knowledge definition that arises from the aforementioned theoretical approaches is not only reflected in the incorporation of multiple views in a single knowledge construct, but also in the sheer volume of knowledge constructs that follows from the possible permutations resulting from, as well as the interaction between, sub-constructs, in each view (compare figure 2.2 below).

Schultze and Stabell's[114] observation on the incorporation of duality in the epistemological debate in KM, demonstrates a further point of how complexity infiltrated the knowledge debate. Here, the authors distinguish between the simplistic "either/or" approach of dualism, noticeable in Nonaka's distinction between tacit and explicit knowledge, and the more complex approach of "both/and" duality. This move toward duality in the knowledge construct is evident in the work of authors such as Cook and Brown,[115] Snowden[116] and Spender.[117] As a general theme, these authors reject the idea that knowledge exists in unitary form and, while critical of Cartesian notions of knowledge such as that evident in mainstream KM and Nonaka's dualism, they do not propose to replace these views of knowledge. Rather, what is proposed here is the recognition that knowledge exists in multiple forms simultaneously.

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[112] Nonaka, I. 1994: 32. It's worth noting here that in collaboration with Takeuchi in the 1995 publication, Nonaka allowed for middle management to set "mid-range" criteria and employees to set sub-criteria (1995: 87)

[113] Jakubik, M. 2007

[114] Schultze, U. and Stabell, C. 2004: 553

[115] Cook, S.D.N. and Brown, J.S. 1999

[116] This type of epistemological duality also exists in Snowden's Cynefin model, where knowledge simultaneously exists "*as a thing and a flow*" (Snowden, D. 2002:102)

[117] Spender, J.C. and Scherer, A.G. 2007:15

Figure 2.2: Jakubik's themes and knowledge constructs in KM literature

Source: Jakubik 2007: 11
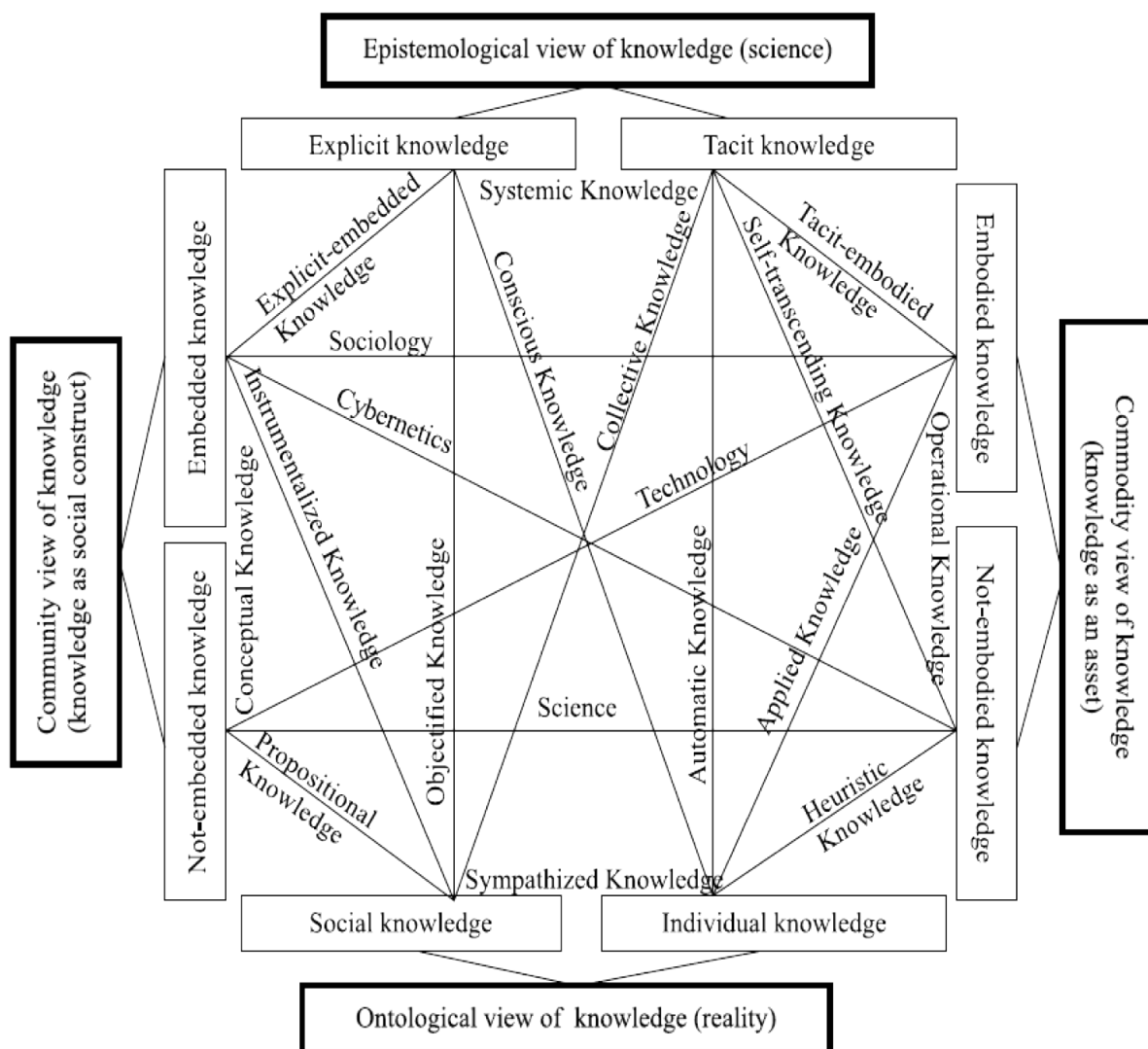
While a comprehensive review of the developments that led to the current state of the knowledge construct, as well as the various definitions that accompany this, is outside of the scope of this research, it is worth noting some of the most pertinent ideas that these debates contributed to organisational knowledge as a concept, amongst others that knowledge is:[118]

- context dependent

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[118] See for example Allee, V. 1997:01; Alvesson, M. & Karremän, D. 2001: 995; Blackler, F. 1995: 1039; Cook, S.D.N. and Brown, J.S. 1999: 382, 388; Hislop, D. 2005: 17; Schneider, U. 2007:617; Stehr, N. 2001: 203; Styhre, A. 2003:35; Tsoukas, H. & Vladimirou, E. 2001: 973; von Krogh, G. Roos, J. and Slocum, K. 1994:61

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- created through social processes

- inseparable from individual and organisational action, capabilities and practice

- dynamic and fluid

- fallible and tentative

- multi-dimensional

Increasing complexity in the organisational knowledge construct is seen by Spender and Scherer as fundamentally an acknowledgement that knowledge is a "*problematic concept.*"[119] This problematic nature of knowledge, combined with its co-existence with mainstream and neo-functionalist definitions in the KM domain, and the pervasiveness of knowledge in the KE, has created what Spender and Scherer refer to as a "*conceptual space into which many different anxieties are now being projected*."[120] From the point of view of this thesis, these "anxieties" include a general concern with organisational knowledge creation, and within this a specific concern regarding the validation of knowledge.

2.6.1 Normative approaches: complex knowledge as cause for anxiety

A key reason for the epistemological anxiety over the complex knowledge construct is evident in the work of criticalist[121] authors, where the central argument is that in KM there is a lack of consideration for how knowledge is qualified. Schreyögg and Geiger[122] for example depart from the point of view that the definition of knowledge in KM has become inclusive to the point where "*everything is knowledge*." In this broad conceptualisation, the authors question the value of knowledge as a factor of production in the knowledge economy.[123] If, they argue, knowledge is indeed as important as literature suggests, then surely it must be distinct from "*everyday action*." If the object of KM is not intended to be everything, but rather intended to be valuable, there has to be some concern with how organisations qualify, as knowledge, the values, beliefs, judgements, know-how, know-that, culture and everything else that is considered instrumental to a broad knowledge definition.[124] For Schreyögg and Geiger the solution to this problem is achieved by imposing a framework on the broad notion of knowledge that is capable of distinguishing the knowledge of value in the KE from the

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[119] Spender, J.C. and Scherer, A.G. 2007: 08

[120] Spender, J.C. and Scherer, A.G. 2007: 07

[121] The concept "criticalist" is used here as a broad notion that groups critical theory, critical realism and critical rationalism together

[122] Schreyögg, G, and Geiger, D. 2003: 06

[123] Schreyögg, G, and Geiger, D 2003: 06 - 07

[124] Schreyögg, G, and Geiger, D, 2003: 02-03

everyday notion of knowledge.[125] This framework, which acts as the process of validation, consists of three interrelated requirements which are expanded on in more detail in section 2.6.1.1 of this chapter. For now, it is sufficient to note that Schreyögg and Geiger propose that the process of validation consists of a knowledge claim, which contains an assertion of its validity, of which the quality has been evaluated through argumentation.

A second approach, evident in concerns about the conceptual clarity of the knowledge construct, is presented in the theoretical proposals of Mingers[126] and Faran.[127] In both instances the authors are concerned with a lack of consideration with truth in the knowledge construct. Mingers, for example, expresses dissatisfaction with existing definitions of knowledge and finds, through a literature review, that there is almost no consideration in KM literature of the relationship between knowledge and truth. He argues that this lack of consideration is not just evident in KM theory that completely ignores the validation requirement, but also among authors who do consider justification, but fail to relate this issue to truth.[128] His concern with truth is based on the traditional epistemological arguments that belief has to be validated and proven to relate in one way or another to truth. As truth is not a simplistic notion and is neither absolute nor final, justification becomes all the more important, as it serves the function of warranting why, under a given set of circumstances, a specific belief is accepted as being true.[129]

For Faran, a lack of consideration of truth in KM implies a significant organisational risk in as far as the consequences of managing and acting on false knowledge are concerned. In his argument, KM as a discipline is neglecting this risk by paying too little attention to the traditional epistemological requirements of justification and truth. At the same time, he is critical of the approaches in KM that acknowledge justification, but essentially "decouples" this from truth.[130]

For Firestone and McElroy, knowledge claim evaluation (KCE) represents the specific process through which knowledge is tested and identified as knowledge in an organisational context.[131]

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[125] Schreyögg, G. and Geiger, D 2007: 81

[126] Mingers, J. 2008

[127] Faran, D. 2014

[128] Mingers, J. 2008: 65ff

[129] Mingers, J. 2008: 73

[130] Faran, D. 2014

[131] Firestone, J.M. and McElroy, M.W. 2005: 195

It is inherently part of a larger framework of knowledge creation called the Knowledge Life Cycle, and is underpinned by a normative philosophical approach to management, called the Open Enterprise.[132] Unlike Schreyögg and Geiger, Firestone and McElroy's concern with the validation problem in KM does not originate from the concept of knowledge, but rather from the function of KM that results from a specific notion of knowledge. For them, KM represents two distinct phases, respectively focused on the supply of knowledge and the generation, or creation, of knowledge. In the latter phase, which they term second generation KM, theoretical concerns broaden to include the notion of how knowledge processes in organisations ultimately lead to new knowledge being created.[133] In this process they identify validation (KCE) as a fundamental, but neglected,[134] process in knowledge production.[135] With regards to the centrality of KCE to KM theory, Firestone puts forward the argument that it is ironic that while KM is intended as a decision support mechanism, it ignores the decision function in KM. This decision function is conceptualised as KCE, the process of "*selecting among competing knowledge claims* . . . [those that are of] . . . *the highest quality.*"[136] For Firestone the reasons for the neglect of KCE relate, on one hand, to the dominant supply-side paradigm in mainstream KM, and on the other, to the incorrect conceptualisation of validation and knowledge in second-generation KM. Relating to the latter, he argues that Nonaka's notion of justification leads to a neglect of validation criteria as it does not concern itself with rational decision making.[137] He also dismisses the notion of validation as socially constructed as found among authors who embrace constructivist approaches to knowledge. Here he argues that the fundamental assumptions inherent in constructivism are flawed, as neither reality nor knowledge is relative, and that history illustrates that knowledge cannot effectively be evaluated through social consensus.

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[132] Firestone, J.M. and McElroy, M.W. 2005 and Firestone, J.M. and McElroy, M.W. 2003b

[133] Firestone, J.M. and McElroy, M.W. 2002

[134] Firestone and McElroy's claim that validation is an ignored aspect of KM theory is supported by Peters, Maruster and Jorna (2010: 252 – 253) who concluded that, on the whole KM theory not only gave little attention to KCE, but in addition, existing theory on the evaluation of knowledge claims was conceptually not satisfactorily understood. In this regard the authors analysed eight contributions published between 1995 and 2008 expressly concerning knowledge creation and concluded that, in addition to the work of Firestone and McElroy, only one other major theoretical paradigm dealing with validation existed.

[135] Firestone, J.M. and McElroy, M.W. 2005: 194 and Firestone, J.M. 2004

[136] Firestone, J.M. 2004

[137] Firestone, J.M. 2004

Although the motivation for engaging with validation in the context of KM can be based on either a concern with the complexity of knowledge as a construct, or the implications of this complex notion for creating knowledge, an underlying consequence of the aforementioned theories is that the notion of knowledge is constrained by imposing boundaries on the construct that specifies normative criteria to distinguish knowledge from non-knowledge. Central to this approach is the requirement that the quality of knowledge claims is evaluated, in order to ensure only those claims of the highest quality are accepted. To illustrate this, and the implications thereof, for the notion of knowledge in organisational KM, further consideration is given to the validation approaches proposed by Schreyögg and Geiger and Firestone and McElroy.

2.6.1.1 Validation as conscious reflection through social discourse

Schreyögg and Geiger[138] propose that the solution to vague notions of knowledge in KM is for the discipline to draw on epistemology,[139] and more specifically on the requirements of scientific knowledge that can be derived from this discipline. For the authors the core process in scientific knowledge, that distinguishes it from non-knowledge or false knowledge, is the use of tests to determine the validity of a knowledge claim. Although recognising that epistemology is characterised by disputes, they argue that irrespective it still allows for determining high-level dimensions that characterise the nature of scientific knowledge, namely:

- knowledge represents statements that are communicated
- each statement contains a claim to validity
- claims can only be accepted as valid once the reasons proposed for their validity have been examined.[140]

While concerned with validity, Schreyögg and Geiger do not relate validity to objective truth, but instead to the criteria used by the scientific community to decide on the acceptability of a knowledge claim. To bridge the established notion in philosophy, that science is the only institution that can create knowledge, with their recognition that all social systems generate knowledge, they investigate the notion of evaluation in non-scientific contexts. In doing so they turn to the philosophy of communication, and argue that all forms of knowledge are

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[138] Schreyögg, G. and Geiger, D. 2003

[139] Note that Schreyögg and Geiger refers to epistemology as the philosophy of science. See also Seirafi, K. 2012:150

[140] Schreyögg, G, and Geiger, D, 2003: 09

linguistically constructed, and that its objectivity derives from consensus-seeking arising through discourses in specific communities.[141] In this communicative view of knowledge, validation results from the inherent claims to validity that are raised by all statements made in discourse. For the purposes of distinguishing the organisational knowledge of concern to KM, Schreyögg and Geiger differentiate between implicit and explicit claims to validity. Here, organisational knowledge is specific to claims that are raised explicitly and resolved through argument as the means to obtain rational persuasion.[142]

Given the epistemological requirement, that validation is not merely a process of establishing the acceptability of a knowledge requirement, but concerned with the quality of the reasons claimed to support its validity, the form of argument used to test validity claims has to meet certain criteria which adhere to the standards of philosophical argument and reasoning. Particularly, Schreyögg and Geiger single out Toulmin's framework for argumentation to illustrate the required logic to be followed in determining the validity of a knowledge claim. Briefly, this framework involves the idea that any knowledge claim is initially substantiated by referring to data. Where a question is raised as to the degree to which data substantiates the claim, the validity of the claim is called into question. Validity then needs to be illustrated by presenting warrants or logical deductions that support substantiation of the claim by the data.[143] Having proposed this process of validation, Schreyögg and Geiger put forward the argument that the notion of knowledge should be restricted to "*all those propositions that have been made subject to an argumentative process in the sense outlined above.*"[144] Organisational knowledge in this sense is limited to essentially the same characteristics that define scientific knowledge in Schreyögg and Geiger's epistemological reading of the overarching characteristics, namely that it is:

- a linguistic assertion
- for which the reasons are communicated
- and through discourse accepted as *good reasons* in a particular community.[145]

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[141] Schreyögg, G, and Geiger, D, 2007:83: "Whilst rejecting the positivist idea of objectivity in terms of correspondence with the world out there, the major stream within the philosophy of language introduces another idea of objective knowledge, i.e. objectivity in terms of inter-subjectivity brought about by joint linguistic constructions of a community . . ."

[142] Also see Bermejo-Luque, L. 2006:76 on the normative nature of argument

[143] Schreyögg, G, and Geiger, D, 2007: 84-85

[144] Schreyögg, G, and Geiger, D, 2007: 85

[145] Schreyögg, G, and Geiger, D, 2003: 11

While acknowledging that this view has been criticized as positivist, Schreyögg and Geiger argue that this is not the case, as their conceptualisation of knowledge does not subscribe to the acceptance of final and universal truth. The latter is also related to their express rejection of universal justification criteria, as the determination of what constitutes "good reasons" is locally constructed.[146] The normativity in Schreyögg and Geiger's proposal is therefore not related to criteria for justification, but rather to the normative prescription that knowledge is restricted to only that which has been "*evaluated in light of reasons*" and accepted as "*the best reasons.*"[147] At the level of the individual this requirement translates into the "*acceptance of the normative power of reasons,*"[148] explained by Schreyögg and Geiger as the requirement that, as better reasons emerge through discourse, these will be accepted. The former introduces into Schreyögg and Geiger's proposal the requirement of normative rationality as the procedure through which discourse is to be managed in order to create knowledge.[149]

Schreyögg and Geiger's normative approach to validation leads them to the argument that knowledge in KM should not include tacit knowledge. Instead of viewing tacit knowledge as knowledge, they propose that it is viewed as skilful practice. For them, skilful practice refers to action rather than cognition. As action, it cannot be considered knowledge as it cannot be fully described, and as such defies explanation as it cannot be substantiated through reasons. Consequentially, tacit knowledge cannot be tested through logical argument, nor can it be proven to be true or false; good or bad; or valid or invalid.[150]

In arguing against the idea that KM concerns itself with knowledge as the capacity for action, Schreyögg and Geiger put forward the claim that this view is too close to the notion of everyday knowledge which characterises the phenomenological account of life in general. This criticism follows from their understanding of knowledge as the basis for action, resulting from a phenomenological view of knowledge as the construction of reality. In this account of knowledge, it becomes the basis of everyday life and the "*cultural repository of a community.*"[151] For Schreyögg and Geiger, this ubiquity of everyday knowledge, as practice,

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[146] Schreyögg, G, and Geiger, D, 2007: 87

[147] Schreyögg, G, and Geiger, D, 2007: 86 and Seirafi, K. 2012: 150

[148] Schreyögg, G, and Geiger, D, 2007: 84

[149] "Argumentation processes are finished by consensus which relies idealistically only on the force of the 'better argument'. It is a paradoxical force, because it is conceived as being forceless: 'the forceless force of the better argument'." Schreyögg, G. and Geiger, D. 2007: 85

[150] Schreyögg, G, and Geiger, D, 2007: 88 - 89

[151] Schreyögg, G, and Geiger, D, 2007:83

does not entail anything of importance in the sense that knowledge is intended in the KE, i.e. as a valuable resource. Furthermore, they argue the notion of knowledge as practice implies an unreflective acceptance of the validity of knowledge underlying practice, which contrasts with the idea that knowledge is created at the point where conflicting viewpoints arise that cannot be resolved by reverting to everyday practice. What distinguishes societies, organisations and work in the KE from this everyday notion of knowledge, is precisely the fact that it is characterised by critical reflection on the validity of knowledge claims. Of importance to note here is that Schreyögg and Geiger do not deny that tacit knowledge or knowledge as action play a role in organisational knowledge, but that both are insufficient as constructs to distinguish organisational knowledge from everything else organisations do. [152] The former in their argument is an important basis for distinguishing between the "superior" knowledge of knowledge-intensive organisations, and the everyday knowledge used in non-knowledge intensive organisations. In their estimation, it is only when organisations are able to execute on the requirements of the procedural normative prescriptions of rational validation in discourse, that they will gain competitive advantage in generating "superior" knowledge.[153]

2.6.1.2 Validation as a defining characteristic of fallible knowledge

Similarly to Schreyögg and Geiger, Firestone and McElroy[154] view validation as a core determinant of distinguishing knowledge from, amongst others, information, action and understanding. As such they too afford a primary position to validation as a definitional characteristic of knowledge as "*tested, evaluated, surviving and encoded structures . . . that help the systems that produce them to adapt.*"[155] The knowledge structures of concern in this definition are derived from Popper's distinctions between World 1, 2 and 3 knowledge, and respectively represent physical or material structures (World 1), personal belief (World 2) and codified knowledge (World 3).[156]

Drawing extensively on Popper's critical rationalism (CR), the authors are at pains to point out that their conception of knowledge claim evaluation (KCE) is not the same as the notion of justification, and in fact is based on Popper's anti-justificationism. In Firestone and McElroy's

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[152] Schreyögg, G, and Geiger, D, 2007: 83 & 90

[153] Schreyögg, G, and Geiger, D, 2007: 93

[154] Note that Firestone and McElroy have extensively published on the subject of KM, both in their individual and combined capacities. In this thesis, reference to works published by either or both is ascribed to both

[155] Firestone, J.M. and McElroy, M.W. 2003b: 57

[156] Firestone, J.M. and McElroy, M.W. 2003b: 58

reading of anti-justificationism this relates to a rejection of the idea that any belief can be proven as infallibly true.[157] The authors relate this rejection of justificationism not only to the epistemological debate from which Popper's rejection stems, but also to the organisational risks they perceive in accepting justificationism as the basis for knowledge. Here they for example point to the threat posed by the acceptance of knowledge based on authoritative forms of justification and the counterproductive consequences of isolating knowledge creation, but more importantly evaluation, to an organisational elite.[158] The programme of CR as an alternative to justificationism, in theory, proposes a wider process of knowledge creation and the critical evaluation of knowledge claims. Knowledge in this view, instead of being representative of the justification of a belief as true, is viewed as the tentatively surviving knowledge claims that emerge from a process of evaluation, testing and criticism. The acknowledgement that knowledge is fallible (and the epistemological rejection of justificationism) is predicated on Popper's argument that while truth exists, it is not possible to derive a set of objective criteria which can be used to establish truth in a specific knowledge claim.[159] Truth, in this sense, thus functions as a "*regulative ideal*"[160] in the process of subjecting a knowledge claim to an evaluative process. At the risk of oversimplifying Firestone and McElroy's theory of KCE, it is the latter epistemological assumptions contained in the notion of CR that inform their view of validation as a normative process in KM. This view of validation imposes certain constraints on what is considered to be organisational knowledge and how validation is conceptualised in relation to organisations.

The first constraint that is imposed on organisational knowledge is similar to that of Schreyögg and Geiger's linguistic requirement, namely that for a knowledge structure to be subject to validation, it has to be expressed objectively. Objectivity in this sense represents the ability to

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[157] Firestone, J.M. and McElroy, M.W. 2003b: 2

[158] Firestone, J.M. and McElroy, M.W. 2003b: xiv: "Thus, Enron adopts a solution to the problem of maximizing its market value that, after initial success, in the end destroys nearly all of its market value. And it does so, in great part, because it hides critical details of its market strategy from employees and Board Members alike, and concentrates knowledge of it within a very small band of insiders. Similar stories apply to Worldcom, Tyco, Global Crossing, and many, many others. For these companies steering the course of adaptation was relegated to the hands of a few in relatively closed conditions. Learning and the adoption of new knowledge was restricted to small groups within top management. Stockholders and other parties were excluded, even though their vested interest in the quality of knowledge produced and integrated into practice in the firms was enormous. Knowledge Processing in such firms is carried out by innovation oligarchies, whose tight-fisted control over the power to produce and adopt ideas is only exceeded by their authority to compel their subordinates to carry them out. Bad ideas get too far along in such ways."

[159] Firestone, J.M. and McElroy, M.W. 2003b: 2

[160] McElroy, M.W. 2008: 63

objectify a knowledge claim as information[161] in codified form which may take on the characteristics of "*descriptions, models, theories, or arguments*."[162] It is this objectivity in knowledge claims that allows it to be subject to evaluation, as it is accessible to all, shareable through interaction with others and as such is available to be critiqued.[163] This objectivity is essential in distinguishing the organisational concern of knowledge from subjective or World 2 knowledge. As beliefs are tied to individuals and as such are not shareable, they cannot be subjected to the same external processes of validation and can therefore not be considered organisational knowledge.[164] Firestone and McElroy's notion of action in relation to World 2 knowledge also leads to them discarding the conceptualisation of knowledge as the capacity for action. Here they locate action as a consequence of World 2 knowledge. Action therefore follows from beliefs that at best have been subjectively and personally validated.[165]

Of importance to the notion of knowledge as a complex construct in KM are two central underlying assumptions that characterise the KCE process, namely realism and rationalism.[166] In the first instance, in as much as Firestone and McElroy reject the idea that objective criteria of truth can be identified, their approach to validation remains grounded in the adoption of a correspondence theory of truth. As the authors draw a distinction between theories of truth and evaluation, their adoption of correspondence here is limited to truth operating as a regulative ideal.[167] Truth then exists in facts which are independent of the knowledge claims referring to these facts. In this sense there is a clear distinction between reality and knowledge of reality, which is fallible. Claims to knowledge must therefore be proven to correspond to the facts to which they refer.[168] How this is achieved is determined by the fallibilist evaluation theory represented by CR. A core component of this approach is the search for error elimination, a process which Firestone and McElroy expanded on through the introduction of fair comparison criteria that act as normative standards against which KCE must be performed. Rationality, in the context of their adoption of CR, then takes on the nature of the task to be critical and is

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[161] McElroy, M.W. 2008:50

[162] Firestone, J.M. and McElroy, M.W. 2002: 110

[163] See also McElroy, M.W. 2008:50

[164] McElroy, M.W. 2008: 50

[165] Firestone, J.M. and McElroy, M.W. 2002:114-115

[166] McElroy, M.W. 2008: 50

[167] McElroy, M.W. 2008: 51

[168] Firestone, J.M. and McElroy, M.W. 2003b: 70

open to accepting alternatives in the face of valid criticism.[169] Attaining knowledge in this sense therefore is a matter of subjecting codified knowledge to rational tests which determine its correspondence to the factual nature of reality.

2.6.2 Summary remarks on normative approaches

In both instances discussed above, the theoretical proposals result in monist conceptions of organisational knowledge and justification.[170] Here both Schreyögg and Geiger, as well as Firestone and McElroy, propose that validation should only take place in one prescribed way, resulting in the production of knowledge with essentially similar characteristics. Knowledge must be explicated and subject to tests of its veracity. Such tests must be rational, and it is only if rationality prevails that organisations create valuable knowledge. While both acknowledge that other forms of "knowledge" exist, they essentially propose that this is not the knowledge that is of importance to the KE, and by implication not the knowledge that should be considered by KM as a discipline. KM as a discipline must therefore concern itself with ensuring the creation of rational knowledge, be that against locally determined criteria of truth as in the case of Schreyögg and Geiger, or against an external reality of facts as in the case of Firestone and McElroy. By attempting to reduce the complexity of knowledge through prescribing one "right way" of arriving at knowledge, both theories exhibit characteristics of an objectivist KM epistemology as described by Hislop.[171] Of concern here is that, if KM is to progress beyond the narrow notions of knowledge in mainstream practice, it appears ill-advised to replace the limited view of knowledge as an outcome of data and information, with knowledge as a concept still narrowly defined but merely based on different criteria.[172]

2.6.3 Practice-based approaches

In contrast to the anxiety a complex notion of knowledge invokes among proponents of normative validation, the acceptance of complex knowledge is a defining characteristic of authors writing from practice-based perspectives. While various theoretical paradigms reflect this perspective, following Marshall and Rollinson[173] these can be grouped together under the

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[169] McElroy, M.W. 2008: 30

[170] This argument draws on Spender, J.C. 1998

[171] Hislop, D. 2005: 17 summarises the four main characteristics of an objectivist epistemology as follows. "Knowledge is an entity/object; Based on a positivistic philosophy: knowledge regarded as objective 'facts'; Explicit knowledge (objective) privileged over tacit knowledge (subjective); Knowledge is derived from an intellectual process"

[172] This argument draws on Spender, J.C. 1998

[173] Marshall, N. and Rollinson, J. 2004: S73

construct of practice-based approaches to knowledge. A shared understanding among these theories relates to the view that knowledge is far removed from the notion of considered rationality by human agents. To illustrate why practice-based theory adopts this position consideration can be given to arguments proposed by Knorr Cetina.[174] For Knorr Cetina, a fundamental characteristic of the knowledge society (KS) is that the influence of knowledge is dispersed and distributed beyond conceptualisations of the KE, as characterised by more artefacts of knowledge. In her argument she proposes that focussing exclusively on outputs fails to recognise that the concept of the KS also implies the amplification of the processes of knowledge creation. These processes are defined not merely by their products, but by the practices through which knowledge is created.[175] It is through focussing on practice that the assumptions of the universality of rationality as the means of knowledge creation are questioned, as practice illustrates that the activities underlying the production of knowledge cannot be understood only in terms of the rational and cognitive proposals of the philosophy of science.[176]

2.6.3.1 Complex knowledge as an enabler

A focus on practice precedes the development of KM, and has been significantly influenced by mid-20th century philosophical arguments in the field of epistemology. This has led to, amongst others, criticism of epistemology as a philosophical approach, the pre-eminence afforded to the economic vs. social role of knowledge, positivism and rationality.[177] Drawing on these criticisms, authors such as Cook and Brown,[178] Blackler,[179] Alvesson,[180] and Tsoukas[181] position the complexity of knowledge in organisational contexts as an opportunity to enrich the theoretical understanding of knowledge, by reconceptualising traditional epistemology and

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[174] Knorr Cetina, K. 1999: 07-08: "A knowledge society is not simply a society of more experts, more technological gadgets, more specialist interpretations. It is a society permeated with knowledge cultures, the whole set of structures and mechanisms that serve knowledge and unfold with its articulation. The traditional definition of a knowledge society puts emphasis on the knowledge seen as statements of scientific belief, as technological application or perhaps as intellectual property. The definition I advocate switches the emphasis to knowledge as practiced – within structures, processes and environments that make up specific epistemic settings. If the argument about the growth of expert systems is right, what we call "society" will to a significant degree be constituted by such settings."

[175] Knorr Cetina, K. 1999: 07-08

[176] Knorr Cetina, K. 2007: 363 - 364

[177] Compare for example Blackler, F. Reed, M. and Whitaker, A. 1993 and Knorr Cetina, K. 1999.

[178] Cook, S.D.N. and Brown, J.S. 1999

[179] Blackler, F. 1993

[180] Alvesson, M. 1993

[181] Tsoukas, H. 2005: Ch. 1

knowledge, as well as the concerns of truth and justification. As argued below, in these instances there is a strong focus on how practice suggests a much more complex notion of knowledge and knowledge creation than suggested by KM theory that attempts to position knowledge away from action. Secondly, an engagement with practice illustrates that the locus of knowledge creation is found in the activities of organisations and in the interaction between different forms of knowledge, rather than in the creation of a single form of knowledge.

Alvesson[182] for example argues that much of the work done in knowledge-intensive firms has little in common with traditional notions of knowledge as formal and theoretical education and the skills obtained through this. Instead he proposes that the real knowledge applied in these organisations is characterised by ambiguity that captures the essence of creativity, social skills and tacit elements which define the ability of organisations to solve problems in a "knowledgeable" way. Similarly to Alvesson, Blackler *et al*[183] view the importance of knowledge as a complex construct in the KE not in terms of objective functional resources, but in terms of practice and action. For them, the ability of organisations to benefit from knowledge resides in their ability to act creatively in resolving problems or finding new opportunities. This view contrasts with the accepted mainstream view of knowledge as a resource or possession that is crucial to organisational success in the KE. For Cook and Brown, this complexity of knowledge in organisational settings represents a "generative dance" between knowledge as a thing and knowing as action. Here the acknowledgement of various forms of knowledge (tacit, explicit, group and individual) is central to understanding that knowledge in different and distinct forms exists simultaneously, and enables action unique to each form of knowledge. At the same time, the authors argue that, while knowledge as a possession is used in action, action constitutes more than that which can be explained by the view of knowledge as possession.[184]

As a consequence of locating knowledge in practice, practice-based theories have questioned some of the more fundamental assumptions underlying traditional views of rationality, truth and justification in relation to knowledge. Blacker[185] for example argues that the desire to be

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[182] Alvesson, M. 1993: 997

[183] Blackler, F. Reed, M. and Whitaker, A.1993: 855

[184] See Cook, S.D.N. and Brown, J.S. 1999: 384

[185] Blackler, F. 1993: 865-866: ". . . the rhetoric of traditional rationalism has retained its attractions. Objectivist images of professional knowledge retain a powerful mystique. . . . Part of the explanation for the continuing vitality of rational-cognitivism in management can be sought from an analysis of the pressures within organizations themselves. Staw (1980) notes that while most theories of individual and organizational behaviour assume that behaviour is logical, goal seeking and self-interested it is not that difficult to show that neither individuals or [sic] organizations are likely to act in such a way very often. Yet most organizations, he

seen as behaving rationally pervades organisational life and managerial practice, and as such creates the perception that knowledge in an organisational context is derived through rational processes. From a postmodernist perspective, this pseudo-rationality creates the impression that knowledge, and organisational structures sustaining knowledge, are independent from interpretation and social construction. However, postmodernism questions the notion that knowledge can be derived objectively, by submitting that all knowledge is constructed through language, which can never be objective or neutral. Emphasizing the subjective nature of knowledge, postmodernist and relativist authors criticize the idea that knowledge can ever be a representation of an independent world. The notions of truth and justification in this view therefore substantively differ from accepted notions in philosophy in so far as postmodernists reject both correspondence and consensus as means to achieve truth.[186] Truth rather becomes a constructed notion that is specific to local circumstances and open to constant revision. As such, neither truth nor justification exists in any universal from.

Applying constructionist arguments in the context of science as the beacon of knowledge, sociologists of science have sought to illustrate that even among the highest forms of knowledge, socially negotiated construction is a characteristic of knowledge, and that claims to objectivity are largely manufactured in the process of justification as an attempt to objectify knowledge and separate it from its socially constructed nature.[187] For Blackler, Reed and Whitaker[188] the combined effect of such theorising has largely discredited views of knowledge as objective truth. Instead, what they propose is that truth is a story that works to justify knowledge in a given situation. In this view it is not only the story that matters, but also the extent to which these stories represent an accepted standard that has been socially negotiated in a particular knowledge context.

While the preceding arguments indicate that practice-based approaches in KM are generally united in their view that narrow conceptualisations of knowledge fail to capture the richness of knowledge construction that characterises the activities of organisations, it is important to note

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points out, are intendedly rational and pressures to act in a prospectively rational manner are strong in areas where performance is visible and easily monitored. Moreover, people are expected also to be able to justify their past actions in acceptable terms; indeed, goal-seeking prospective rationality at a senior level is likely to be translated into self-protective, retrospective rationality elsewhere. According to Staw, pressures for rational explanations of behaviour pervade organizations."

[186] Johnson, P. and Duberley, J. 2000: 03

[187] Knorr Cetina, K. 1999.

[188] Blackler, F. Reed, M. and Whitaker, A. 1993: 854

that these approaches do not represent a uniform set of theories.[189] Such differences are, amongst others, evident in the degree to which practice-based theory will engage with epistemological concerns, as well as the portrayal of epistemological concerns and the value that could be derived from engaging with epistemology. As illustrated in the arguments below, practice-based theories vary from the concern that epistemology detracts from KM's objectives, to the view that epistemology can, and should, contribute to theorising in knowledge management.

In considering the need for pluralism in KM, Spender[190] proposes the argument that engagement with epistemology places KM as a discipline at risk, and detracts from the possible unique contribution that the field can deliver to organisational management. Here specifically he raises the concern that approaching KM from an epistemological point of view subjects the discipline to the same problems to which epistemology has failed for centuries to provide final answers. He sees this risk particularly arising in the work of authors who insist that KM finds a clear solution to the problem of what knowledge is, before attempting to manage it. For Spender this approach fails to recognise epistemology's concern with the nature of knowledge as part of the human condition vis-a-vis KM's concern with organisational life only. Contrasting with epistemology's search for a final answer on the status of knowledge, KM's contribution resides in its recognition that knowledge is a problematic construct. In this sense KM needs "*to turn the entire epistemological project upside down*".[191] Here it is precisely the recognition that knowledge is more than what any individual can consciously express, that provides KM with an opportunity to provide a unique perspective on organisations.[192]

Moving beyond an understanding of epistemology as constraining the notion of knowledge, authors such as Tsoukas and von Krogh approach epistemology with the view to redefine it in the context of organisations. These approaches to epistemology reposition the debate on the nature of knowledge away from epistemology's normative concern, toward a practical concern of work and action. In doing so, knowledge creation in an organisational context aligns to theoretical description and understanding, rather than normative prescription. Tsoukas probably illustrates this best when he argues that, from an organisational point of view,

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[189] This characteristic of practice based theories is general to the approach and concerns significantly more elements of diversion that those of concern in this thesis, see for example Schatzki, T.R. 2005.

[190] Spender, J.C. 2009:09

[191] Spender, J.C. 2009:11

[192] Spender, J.C. 2009: 11-12

epistemology is the study of *how* knowing, thinking and deciding takes place in organisations.[193] In this sense organisational epistemology is redefined as a framework for understanding organisations as systems of complex knowledge. While in one sense this view of epistemology positions it as a descriptive and empirical endeavour, it also raises a set of concerns much broader than that of the philosophical view. Here epistemology is not just concerned with the components, conditions and limits of knowledge,[194] but also with how this is applied within organisations and what the internal and external consequences of using and creating knowledge are.[195]

In defining corporate epistemology as an approach to strategic management, von Krogh, Roos and Slocum focus on the need to redefine management in the context of organisations "*as a stream of knowledge*."[196] This redefinition takes place against the background of the growing importance of knowledge to organisations and the need in this context to adapt organisational strategy and management to a view of organisations grounded in knowledge. Epistemology in this sense represents a framework to understand knowledge and to reinterpret management activity in the context of knowledge. While drawing on philosophy's insights on knowledge, corporate epistemology is not an attempt to prescribe "*the best*"[197] epistemology, but rather it focusses on the need for mutual understanding, the contextuality of knowledge and consequently the ways in which epistemological discussions enrich organisational notions of knowledge.[198]

Von Krogh *et al*'s approach to redefining epistemology in KM away from its essentialist nature,[199] is also reflected in the work of authors such as Tell,[200] as well as Boisot and MacMillan. [201] In both instances the authors consider the value that epistemology can offer to

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[193] Tsoukas, H. 2005: 11: "An enquiry into organizational epistemology would be concerned, inter alia, with the following questions: What is organizational knowledge and what forms does it take? What are the forms of life within which different kinds of knowledge are embedded? How is new knowledge created? How do individuals draw on different forms of organizational knowledge, with what effects? What are the representational and social practices through which organization construct and communicate their forms of knowledge? How are knowledge claims justified and legitimated within organizations?"

[194] Compare Moser, P.K. 2002: 03

[195] Tsoukas, H. 2005: 11-13

[196] von Krogh, G. Roos, J. and Slocum, K.1994:54

[197] Venzin, M. von Krogh, G. and Roos, J. 1998:60

[198] Venzin, M. von Krogh, G. and Roos, J. 1998: 37 & 59-60

[199] This observation draws on comments from Tell, F. 2004: 444 & 446, as well as Hecker, A. 2012: 425

[200] Tell, F. 2004

[201] Boisot, M. and MacMillan, I.C. 2004

the KM discipline specifically in relation to understanding, at a general level, justification practices in organisations. However, this consideration takes place in broader and more general terms than intended in traditional philosophy. In this regard, Boisot and MacMillan find value in Plato's original conceptualisation of JTB to describe, under the practical circumstances of creating organisational knowledge, how justification, truth and belief can variously act as the basis for validating knowledge. Of critical importance here is that the authors reinterpret the essential nature of JTB not as a single set of criteria of validating knowledge, but as diverging elements giving rise to divergent worlds which act as the basis for justifying knowledge under specific circumstances.[202] In similar vein Tell proposes that a general understanding of organisational justification practices can be attained through understanding the various approaches in philosophy to establishing grounds for justification, but not by reducing organisational knowledge to an essentialist project. Instead he proposes that by foregrounding the pluralist nature of knowledge, pluralism in justification criteria must too be retained. By arguing for a move away from essentialism, Tell focusses on how divergent justification criteria enable the existence of different forms of knowledge in organisations.[203]

2.6.3.2 Validation as part of complexity

Given the aforementioned role of epistemology, the importance of justification in practice-based KM theory results from precisely this concern with the extent to which the complexity of knowledge demands a deeper understanding of its development.[204] As argued above, from a practice perspective, justification forms part of the epistemological nature of organisations. However, as with the conception of epistemology, the concern with justification is first of all positioned in the context of the organisation. This notion is illustrated by the pragmatic approach to epistemology taken by Boisot and MacMillan, who reframe the question of justification in the context of KM as an answer to "*what constitutes valid knowledge for who and under what circumstances?*"[205] In this sense concerns with justification in the context of practice based KM theory start with *a view* on the nature of organisational knowledge, and not with the question of how organisational knowledge should be delimited to represent a normatively acceptable knowledge construct. Departing from this perspective has a number of consequences for the conceptualisation of justification in practice-based theory. By engaging

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[202] Boisot, M. and MacMillan, I.C. 2004

[203] Tell, F. 2004

[204] Compare Venzin, M. von Krogh, G. and Roos, J. 1998:36

[205] Boisot, M. and MacMillan, I.C, 2004: 507

with the concern of justification, there is general acceptance that all organisations engage in the practice of deciding on the legitimacy of knowledge claims.[206] This practice of legitimising knowledge claims draws on the determination of criteria for the validation of knowledge claims, which involves the organisational relationships between processes, policies, procedures[207] and actors.[208] A focus on these relationships furthermore introduces the dynamics of social factors in determining the organisational validity of knowledge claims. As a field of interest in practice-based theory, the justification of knowledge claims is therefore positioned as encompassing a much wider variety of concerns than that associated with an essentialist approach.

At the level of justification criteria, the acceptance of knowledge as multi-dimensional implies that justification criteria are equally considered as multifaceted.[209] Practice-based theorising therefore allows for the simultaneous existence of seemingly conflicting criteria of justification.[210] However, from a theoretical point of view, practice scholars differ in the degree to, and the level at which, theorising about these practices are generalised.[211] This can be understood as the extent through which local contingency[212] is considered more or less the determinant in how justification takes place as a process, and how criteria for justification are determined. Where practice theory is strongly contextual, theories of justification will tend to propose the local determination of justification criteria. Tsoukas for example argues that "*when organizational members are asked to justify their actions, they do so in the terms provided by the organizational discourses in which they participate.*"[213] Justification criteria in this sense are viewed by Tsoukas as changing, dependent on the nature and content of organisational discourse, and as discourse is determined locally, so is the means through which justification is expressed. While still maintaining a strong focus on practice, authors such as Robertson *et al*[214] draw attention to the institutional nature of justification, and in this sense offer a more generalised view of knowledge legitimisation, as drawing on epistemological bases that span

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[206] Tsoukas, H. 2005: 10 - 12

[207] Tsoukas, H. and Mylonopoulos, N. 2004:S4

[208] Tell, F. 2004: 465 and Blackler, F. 1995: 1037 - 1039

[209] Compare Allix, N. 2003

[210] See for example O'Leary, M. and Chia, R. 2007: 394 & 398

[211] This argument draws on the views of Tell, F. 2004

[212] This argument draws on the views of Knorr Cetina, K. 1999: 01 - 11

[213] Tsoukas, H. 2005: 275

[214] Robertson, J., Scarbrough, H. and Swan, M. 2003

across organisations. The contextuality of practice in this instance exists not at the level of the individual organisation, but rather in the differences in legitimising knowledge between different professions.[215] A similar view, but here focussed more generally at the level of culture, is proposed by O'Leary and Chia[216] who apply Foucault's concept of episteme to practice and sense-making. Here the authors expand on Foucault's proposal that, in practice, the creation of knowledge often involves the "unconscious" enactment of an underlying set of culturally approved rules for the creation of knowledge, including rules that govern the legitimacy of knowledge. Contextuality of practice exists in how an organisation relates in its specific activities to locally determined criteria, but the criteria themselves draw on a generic structure.[217]

On one level it is possible to argue that an outcome of acknowledging conflicting justification criteria is a concern in practice-based theory with the internal dynamics of mediating between seemingly incommensurable validity criteria.[218] The latter is for example considered in the characteristics of organisational practices that influence the process of validation. In this instance von Krogh and Grand,[219] for example, argue that understanding justification in practice-based theorising results in greater consideration for the role that managerial choice and praxis play in establishing organisational knowledge. Viewed from this perspective, managerial preference permeates organisational justification processes and, as it is deeply embedded in practice, it constrains the introduction of alternative validity criteria.[220] A second focus in this line of theorising is on how accepted validation practices become established. From this point of view, the focus shifts to the role that power, politics and interests play in determining validation criteria and processes.[221] This has amongst others led to the recognition that claims to the validity of knowledge are influenced by the position of knowledge workers in an organisation, and that predominant notions of what constitutes valid organisational knowledge are biased toward externally legitimated expertise over internal experience.[222] Similarly, keeping the notion of validation open has allowed for an appreciation of the role that

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[215] Robertson, J., Scarbrough, H. and Swan, M. 2003: 835

[216] O'Leary, M. and Chia, R. 2007

[217] O'Leary, M. and Chia, R. 2007: 404

[218] O'Leary, M. and Chia, R. 2007: 404

[219] von Krogh, G. and Grand, S. 2000:15

[220] von Krogh, G. and Grand, S. 2000

[221] Tsoukas, H. and Mylonopoulos, N. 2004

[222] Tsoukas, H. and Mylonopoulos, N. 2004: S5 and Yanow, D. 2004: S10

politics and power play in challenging notions of validation as the outcome of rationally-agreed discourse, instead focussing attention on how exerting power represents an attempt to redefine the criteria used for justification in a particular context.[223]

The remainder of this research project focusses on obtaining an in-depth understanding of the conceptualisation of justification in the practice-based KM tradition. To facilitate this, the respective work of von Krogh and Tell, in proposing theories of justification, will be evaluated. The selection of these two theories is, first of all, constrained by the objective of this research to evaluate validation from the perspective of practice-based KM. By implication, any theory considered for selection must therefore meet the minimum criteria of being classified as a practice-based theory. To evaluate this, consideration is given to the definitional components of knowledge as contained in the work of these authors. In this regard von Krogh defines knowledge as residing "*in mind, body, and the social system. It is observer- and history dependent, context sensitive and not directly shared, only indirectly through discussions*". [224]
An important component of von Krogh's conceptualisation of knowledge is that, as a construct, it is inadequately understood as an objective representation of an external reality; instead, he emphasizes the constructed nature of knowledge and the intimate relationship between knowledge and the knower.[225] For Tell, organisational knowledge resides in practices and activities and cannot be separated from the social context in which organisational members justify knowledge claims. Arguing from the perspective of Wittgenstein's notion of language games, Tell proposes that knowledge in this view is positioned away from concerns with cognition and correspondence, and instead positions it as a concern of justifying knowledge in "*the social practice of knowing in organisations*."[226]

The second criterion that is applied in this thesis is that the theory should offer an express and detailed contribution to understanding justification in the context of the practice of organisations. In this instance von Krogh positions the contribution of managerial justification theory as "*explicitly analysing of the role of justification*"[227] in organisational knowledge creation. In similar vein, Tell situates his pluralist approach in the realm of "*analysing*

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[223] Marshall, N. and Rollinson, J. 2004: S81

[224] Venzin, M. von Krogh, G. and Roos, J. 1998: 43

[225] von Krogh, G. Roos, J. and Slocum, K.1994: 57-58

[226] Tell, F. 2004: 447

[227] von Krogh, G. and Grand, S. 2000:15

organisational knowledge as a process of justification in different contexts".[228] In both instances the theories selected are therefore attempts at providing general theories that are of specific concern to the justification of organisational knowledge.

Although the two theories chosen here are classified under the broad practice-based perspective, there are important differences in these approaches which further inform their selection. Firstly, von Krogh's approach is developed in the context of autopoietic epistemology, which positions knowledge development as inherently related to the organisation as a self-referential entity.[229] As a result of the former, organisational closure is assumed[230] and justification is positioned at the level of an internal organisational process that continually refers back to the organisational identity.[231] Theoretically von Krogh's conceptualisation of justification draws on the sociology of knowledge and constructionism,[232] and in this sense is an attempt to understand the process of justification outside of the traditional concerns of epistemology with validity criteria. In contrast to von Krogh's proposal, Tell positions the justification concern in the realm of validity criteria.[233] In this regard he reviews essentialist approaches' concern with the basis for accepting knowledge claims,[234] but proposes that, instead of reducing knowledge to a single type, an understanding of divergent justification criteria allows for an understanding that knowledge exists in multiple forms. Unlike von Krogh, Tell's theory is not a generalisation at the level of validation processes, but rather at the level of justification criteria.[235] In doing so he draws on different theories of justification in philosophy, and positions this in the broader framework of pluralism. Resulting from the former, Tell's proposal, by design,[236] is not focussed on the contextual and constructed nature of justification as a process, but instead on generalising at the societal level by arguing for parallels between general justification criteria and organisational practice.

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[228] Tell, F. 2004: 443

[229] von Krogh, G., Roos, J. and Slocum, K. 1994

[230] This comment draws on arguments from Giroux, H. and Taylor, J.R. 2002: 502

[231] von Krogh, G. and Grand, S. 2000

[232] See for example von Krogh, G. and Roos, J. 1994 and von Krogh, G. and Roos, J. 1995

[233] Tell, F. 2004: 443 - 444

[234] Note here that, while Tell (2004: 444) addresses the question raised by authors such as Schreyögg and Geiger, his work precedes their theory and draws more generally on the claim that in practice based theory the definition of knowledge is vague

[235] Tell, F. 2004

[236] Tell, F. 2004:464 describes his approach as an argument for an organisationally "weaker understanding of knowledge as justification criteria are generic rather than confined to the boundaries of the organisation"

2.7   Conclusion

In this chapter the development of the validation concern in KM has been contextualised as an outcome of the implicit epistemological assumptions underlying specific approaches to knowledge, which in turn influence the debate on the nature of knowledge and the functions of KM. In mainstream KM, with its predominant notion of knowledge as an unproblematic construct, validation is either ignored or seen in information management terms. A more complex notion of knowledge developed over time and has been accompanied by engagement with the justification debate in the context of KM. From this engagement it is evident that normative approaches to validation have important consequences for both the construct of knowledge and the process of validation. Knowledge, by virtue of the fact that it has to be linguistic, must be explicated and codified. Validation as a process requires organisational actors to behave rationally. Contrasting with the normative approach, practice-based theories emphasize the need to see validation as a core component of knowledge creation that must be understood, rather than prescribed. In this approach the validation process is kept open to complexity, and, as it is not aimed at delimiting the notion of knowledge, it does not result in the rejection of certain forms of knowledge. The next two chapters will turn to a more detailed evaluation and understanding of the practice-based approaches to justification as respectively represented in the theories of von Krogh and Tell.

Chapter 3

Managerial justification theory

3.1 Introduction

Managerial justification theory in the work of von Krogh[237] is an exposition of the "*black box*"[238] of knowledge creation and justification, conceptualised through the adoption of constructivism and systemic constructivism as represented in autopoiesis. An important point to note here is that von Krogh's preference for constructivist theory stems from the adoption of a sociology of knowledge approach to understanding knowledge creation, a position which contrasts with the more traditional approaches to the philosophical understanding of knowledge. This positions von Krogh's work away from the concerns of normativity and towards the concerns of description and understanding.

Prior to the publication of the theory of managerial justification, von Krogh established a body of work positioning organisational knowledge within the broader constructivist framework. This included an expansion of the autopoietic intention in Nonaka's KCC theory of knowledge. While the centrality that Nonaka afforded to justification, as well as the overall emphasis on the knowledge creation process, arguably influenced the development of managerial justification theory, von Krogh's approach to the organisational legitimation of knowledge preceded the formalisation of his theory of justification. A discussion of managerial justification must therefore be preceded by an understanding of the constructivist view von Krogh employs in conceptualising organisational knowledge and truth. Consequently this chapter starts with an investigation of the conceptual roots of managerial justification theory.[239]

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[237] von Krogh's ideas have been developed in collaboration with various others. In this thesis reference to von Krogh is used as short hand for his collaborative work

[238] von Krogh, G. and Grand. S. 2000: 15

[239] It should be noted here that von Krogh's work on the subject of organisational knowledge is prolific, the investigation is therefore guided by the need to ultimately understand how the earlier work in organisational knowledge lays the groundwork for managerial justification theory, rather than to represent a comprehensive review and discussion of von Krogh's constructivist theory of knowledge.

Having elaborated on this, the chapter turns to von Krogh's theory of justification and the particulars thereof. Finally the implications of this theory as elaborated by von Krogh, as well as its limitations in the context of a constructivist approach to justification, is discussed.

3.2   Conceptual roots of managerial justification theory

Conceptually managerial justification theory is founded in a constructivist view of knowledge that draws both on "weak" constructivism, as represented in the constructivist interpretation of phenomenology, and systemic or cognitive constructivism[240] as found in the autopoiesis of Maturana and Varela and the interpretation of society as an autopoietic system by Luhmann. In both instances, von Krogh draws on the constructivist understanding of knowledge to provide an alternative view of knowledge that contrasts with the cognitivist notion of knowledge in strategic management.[241]

3.2.1   Knowledge as socially constructed

Managerial justification theory is conceptually grounded in the interpretation of knowledge as a core determinant of organisational competencies. In this view it represents an attempt to overcome the limitations of traditional resource-based approaches to firm performance, specifically in relation to addressing the problem of sustainable competitive advantage. Given this shortcoming, von Krogh's approach is encased in the broader objective to redefine strategic management by considering constructivist theory as an enhancement to mainstream managerial approaches to knowledge in particular and strategy in general.[242]

As a core problem in strategic management theory von Krogh[243] identifies the inability of resource-based theories of the firm to account, in a conceptually clear manner, for the intangible resources which are the root of sustainable competitive advantage. To address this problem, he introduces the concept of competency as a construct that links knowledge to a specific task. Of specific importance to this research project is the constructivist conceptualisation of knowledge that von Krogh proposes in relation to competencies. Constructivism is firstly introduced to overcome the problem of the traditional dichotomy between knowledge as a social product on the one hand, versus individually possessed on the

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[240] This characterisation draws on the observations of Knorr Cetina, K (1993) and Grand, S. Ruëgg-Stürm, J and von Arx (2010) in relation to the classification of constructivist/constructionist theories

[241] von Krogh, G. Roos, J. and Slocum, K. 1994

[242] von Krogh, G. and Roos, J. 1995

[243] von Krogh, G. and Roos, J. 1995

other. In the context of strategic management von Krogh argues that it is necessary to overcome this distinction by merging both the micro-level understanding of knowledge (individuals) with the macro-level understanding of knowledge (firms) as the primary unit of analysis in organisational competence. This merger is achieved through constructivism's roots in phenomenology[244] and specifically through the notion of intersubjectivity as an explicit attempt at combining the concepts of individuals and society.[245] Intersubjectivity exists because the individual's experience (subjectivity) of everyday life exists only in relation to other members of society. Individual knowledge is therefore always situated in social structures.[246]

Constructivism, rather than deny the role of individual knowledge by focussing only on the social, redefines it to substantively diverge from the cognitivist notion of individual knowledge as an objective mental representation of an external social reality, which can readily be transferred between individuals without loss of meaning. Instead, what is proposed through constructivism is that individual knowledge represents a subjective interpretation of reality which can never result in the direct transmission of knowledge as objective entity. Rather, subjective knowledge is shared between individuals through the process of objectivation and through this process social knowledge is created.[247] Objectivation draws directly from the phenomenology of Schutz and Luckman, and concerns the process through which subjective knowledge is socialised and as a result becomes embodied in the everyday life world.[248] The process of objectivation acknowledges that tacit knowledge can often not be expressed directly through language, and as such incorporates the use of marks, tools and signs in addition to language in the process though which subjective knowledge is shared. [249]

It is through the process of objectivation that von Krogh positions legitimation as a function in the acceptance of subjective knowledge at the level of the organisation. The overarching objective here is to guard against the destabilisation of the firm's established legitimised practices through the introduction of subjective knowledge. In this sense, subjective knowledge must be legitimised against the same criteria that underlie the legitimacy of the organisation. These criteria, as identified by Berger and Luckman, are then reinterpreted by von Krogh as

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[244] von Krogh, G. and Roos, J. 1995: 62-63

[245] Compare Overgaard, S. and Zahavi, D. 2009: 03

[246] Berger, P. and Luckman, T. 1991: 78-79

[247] von Krogh, G. and Roos, J. 1995: 63

[248] Schutz, A. and Luckman, T. 1973: 264

[249] von Krogh, G. and Roos, J. 1995: 63-64

representing the levels of legitimation that must be addressed for subjective knowledge to be adopted as social knowledge.[250] At the level of incipient legitimation von Krogh argues that subjective knowledge is legitimised using commonly accepted means of objectivation (i.e. language, signs, tools and marks). An important point here, is that these means of objectivation do not necessarily have to be commonly known, and can include the use of words and concepts that are new to a specific group. The second level concerns pragmatic means of legitimising knowledge, and is bound up with traditions and stories in the organisation, which convey the reasons for adopting certain actions. Thirdly, organisations adopt formalised and specialised systems of theoretical knowledge such as those contained in accounting practice. Legitimation in this sense is achieved through either referencing or using such systems. Finally, at the symbolic level, organisations' knowledge is legitimated through accepted frameworks that guide organisational behaviour in a broader societal framework. This involves the socially accepted knowledge that defines, for example, industry-appropriate behaviour.[251] By considering the constructionist implications for legitimation, von Krogh is able to position justification as a local and contingent process.

3.2.2   Knowledge creation as autopoiesis

One of the earliest contributions from von Krogh to the KM debate considered a reinterpretation of organisational knowledge through an autopoietic epistemology.[252] With this proposal von Krogh sought to enhance the theory of organisational knowledge by considering a supplementary[253] theory to the dominant cognitivist notion evident in strategic management literature.[254] This cognitivist conception of knowledge was born out of the mid-20th century

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[250] von Krogh, G. and Roos, J. 1995: 64-65; see also Berger, P. and Luckman, T. 1991: 110 - 113

[251] von Krogh, G. and Roos, J. 1995: 64-65; and Berger, P. and Luckman, T. 1991: 110 - 113

[252] von Krogh, G. Roos, J. and Slocum, K. 1994: 58: "Evoking autopoiesis theory implies rethinking some of the very basic assumptions behind . . . how and why organizations know. We want to speculate on what happens if one relaxes some of the assumptions of the cognitivist perspective and replaces them with the assumptions of autopoiesis theory. In doing this we believe that autopoiesis theory emerges as an important contribution to these previous works in strategic management. Unlike the cognitivist perspective, autopoiesis theory suggests that the world is not a pre-given state to be represented, but rather that cognition is a creative act of bringing forth a world."

[253] It is important to understand from the outset that autopoietic epistemology is not intended as *the* epistemology of organisational knowledge, but rather as a complimentary viewpoint in a pluralist understanding of organisational knowledge. In this context von Krogh argues that "*Some phenomenon might be better understood and explained within the cognitivist epistemology – but some are not, and so call for a new epistemology*" (von Krogh, G. Roos, J. and Slocum, K. 1994: 57). An autopoietic approach to knowledge is therefore intended to supplement and enrich the concept of organisational knowledge rather than to displace out of hand, existing and alternative epistemologies.

[254] von Krogh. G., Roos, J. and Slocum, K., 1994: 58. It is important to note here that in later work e.g. Venzin, M. von Krogh, G. and Roos, J. 1998, autopoiesis has also been contrasted with connectionist epistemology.

development of cognitive science as the study of knowledge and cognition beyond the traditional concerns of philosophy and psychology. As a new theory of knowledge, cognitivism mainly distinguished itself from pre-existing approaches through the parallels drawn between human cognition and information processing using digital computers. Simultaneously cognitivism retained significant influences from Cartesian rationalism and representationalism which has considerable implications for its notions of truth and justification.[255] While a comprehensive review of cognitivism is beyond the scope of this research, it is important in the context of von Krogh's approach to organisational knowledge in general and justification in particular, to elaborate on the primary implications of this representationalist epistemology.

3.2.3   Basic assumptions of representationalism

At the core of representationalism is the belief that reality is characterised by *pre-given* features which can be *represented* in cognition which, through *reason*, come to represent the *true* nature of an external world.[256] In this sense representationalism appeals to the dominant Western notion of understanding entities as clearly demarcated systems.[257] From the view of organisations it is therefore possible to demarcate the organisation from its environment as an independent system. Within the environment there are certain knowable facts which are cognitively stored by individuals in the organisation. Through fact-processing, organisations build a representation of the environment which becomes increasingly accurate as more facts are stored and new incoming information is related to previous representations.[258] The resulting notion of knowledge is that of representations of an external reality, where the processes of representation are akin to the ways in which computers process and store information.[259] This interpretation of knowledge lends primacy to reality and truth, as respectively the external reference points for knowledge, and the evaluation of knowledge judged against the degree to which it accurately reflects this reality.[260] The primacy afforded to cognition as the method

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However as the core concept of dominant logic as relevant to von Krogh's theory of organisational justification developed from the cognitivist tradition, this research focusses exclusively on cognitivism in contrast to autopoiesis

[255] Varela, F.J., Thompson, E. and Rosch, E. 1993: 6-8 &138-140; also see Tsoukas, H. 2005: 394-395

[256] Tsoukas, H. 2005: 395

[257] Morgan, G. 2006: 245 & 369

[258] Venzin, M. von Krogh, G. and Roos, J. 1998: 38-39

[259] von Krogh, G. Roos, J. and Slocum, K. 1998: 57 and Varela, F.J., Thompson, E. and Rosch, E. 1993: 140

[260] Huemer, L. von Krogh, G. and Roos. J. 1998: 131: : " 'Reality' and 'truth' hold privileged positions, reality being the point of reference for inner representations and truth being the degree to which inner representations correspond to the outer world . . ."

through which knowledge reflects the truth of an external reality, draws on the assumption that through reasoning, based on logic and probability judgements, humans develop increasingly accurate representations of an external world.[261] The process of reasoning, through which knowledge is acquired, is based on the assumption that humans possess the innate ability to be rational.[262] Concomitantly the rules according to which data is processed are, from the cognitivist view, universal.[263] Following the rationalist tradition, an important consequence of representationalism, in relation to justification, results from the preceding, namely that justification must lead to a universal truth, where truth must be understood as correspondence to reality.[264] The underlying assumption here is that increasing information and data continually improve the degree of correspondence between reality and cognitive representation. In this manner more data and more information allows for increasingly accurate representations of the world.[265]

An important underlying assumption to this cognitivist approach is that the truthfulness of knowledge can be judged as if through an objective process. In essence this can be understood as a vantage point removed from both reality and knowledge (see figure 3.1), where one would then be able to determine the extent to which knowledge corresponds to reality, i.e. its truthfulness.[266] This notion, that knowledge exists in reality and is uncovered in the process of arriving at truth, remains at the centre of most epistemological approaches followed in KM, even those critical of the idea that universal truth can be discovered through reason, or that judgements made in relation to the accuracy of truth can be objective. Referring back to the two normative approaches discussed as possible solutions to KM's validity problem in chapter 2, it is worth noting here that, while both are critical of the original notions of Cartesian rationalism, they maintain allegiance to the notion of reality as existing independently of cognition. Popper's critical rationalism for example, while rejecting Cartesian foundationalism as the basis for justification, is still based on the idea that knowledge can exist "*without a knowing subject*"[267]. Habermas' ideal speech situation, from which Schreyögg and Geiger draw

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[261] Huemer, L. von Krogh, G. and Roos. J. 1998: 131

[262] Nagel, J. 2014: 38

[263] Venzin, M. von Krogh, G. and Roos, J. 1998: 38-39

[264] Rorty, R. 1989: 169: "For to be truly rational, procedures of justification *must* lead to the truth, to correspondence to reality, to the intrinsic nature of things."

[265] Venzin, M. von Krogh, G. and Roos, J. 1998: 38

[266] Morgan, G. 2006: 245

[267] Gattei, S. 2008: 56

for their approach, is similarly framed as an approach where truth statements relate to an objective reality.[268]

Figure 3.1: Simplistic representation of the cognitivist perspective of knowledge[269]
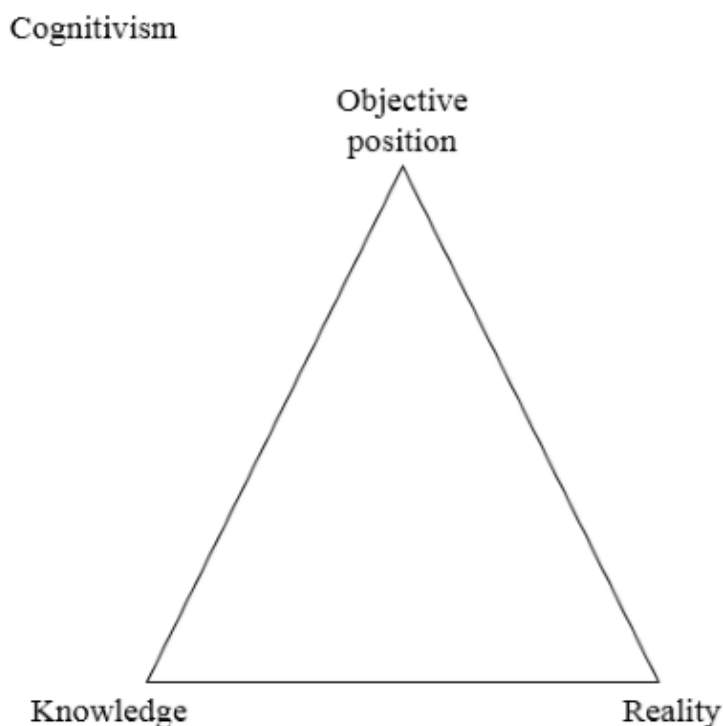
3.2.4 The autopoietic challenge to representationalism

Given the extent to which most KM theories, since Nonaka, have focussed on positioning themselves in opposition to Cartesian rationalism, it is important to understand that most still maintain this so-called realist ontology.[270] It is precisely this latter idea, that reality can be understood independently of knowledge, which is challenged by an autopoietic epistemology.[271] As autopoiesis views all knowledge as constructed in a specific context, there is in essence no objective position which can be occupied by a knower to evaluate the extent

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[268] Mingers, J. 2008: 69

[269] Note that the symbolic representation is not intended as literal

[270] Varela, F.J., Thompson, E. and Rosch, E. 1993: 133: "Thus even when the very ideas of representation and information processing change considerably, as they do in the study of connectionist networks, self-organization and emergent properties, some form of the realist assumption remains."

[271] Varela, F.J., Thompson, E. and Rosch, E. 1993: 150

of correspondence between knowledge and reality.[272] Moreover, as explained by von Krogh,[273] "*cognition is a creative act of bringing forth a world.*" In this sense, any understanding of reality is a construction like all other cognitive understanding. It is important to elaborate on this point to avoid confusing the autopoietic notion of reality with a relativist or idealist position. Autopoiesis does not deny the existence of an independent world, in the sense of idealism which holds that what is represented as reality is merely a reflection of our cognition.[274] Rather, autopoiesis attempts to bypass the notion of representationalism[275] found in both cognitivism and idealism, by viewing knowledge as developing through action in the world.[276] Epistemologically, autopoiesis therefore repositions its core question away from a concern with how humans *represent* the world, to how humans *live* in the world.[277]

Von Krogh elaborates on the implications of this approach by exploring the autopoietic view of knowledge which holds that knowledge is inseparable from the knowing individual. This notion, of the embodiment of knowledge, implies that knowledge can never be objective, as it is always intimately tied to the knower, both from a cognitive and contextual perspective. Hence the context in which an individual is situated and her pre-existing knowledge determines both what is observed and what is deemed relevant to knowledge. In this process, individuals draw on norms and distinctions as processes for determining observation and meaning.[278] Knowledge originates with distinctions which in turn are based on action in the world; in this sense any distinction can only be related back to the human action which allows for drawing

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[272] Sice, P. and French. I. 2004: 57

[273] von Krogh. G., Roos, J. and Slocum, K. 1994: 58

[274] Varela, F.J., Thompson, E. and Rosch, E. 1993:172

[275] Varela argues that idealism concerns itself with representationalism in as far as it views representationalism as the projection of "*a pregiven inner world*" Varela, F.J., Thompson, E. and Rosch, E. 1993: 172

[276] Varela, F.J., Thompson, E. and Rosch, E. 1993:172-173

[277] Tsoukas, H. 2005: 396: "The second answer to the question of how thinking is related to action, is the enactive approach. According to this, knowing is action. In Varela et al.'s words (1991: 149): 'knowledge is the result of an ongoing interpretation that emerges from our capacities of understanding. These capacities are rooted in the structures of our biological embodiment but are lived and experienced within a domain of consensual action and cultural history. They enable us to make sense of our world'. On this view, rather than the mind passively reflecting a pre-given world, the mind actively engages with the world and, by doing so, it helps shape the world."

[278] von Krogh. G., Roos, J. and Slocum, K. 1994:58: "Moreover, at the individual level, knowledge is not abstract but rather is embodied in the individual . . . the proposition of 'embodied knowledge' suggest that all knowledge is dependent on the manager, or everything known is known by somebody. More important, however, knowledge depends very much on the 'point of observation' of the manager. Where you stand or what you know determines what you see or what you choose to be relevant."

the distinction.[279] Knowledge is therefore personal, as each individual develops knowledge based on personal action in the world and her own cognitive knowledge structure.[280]

As a process, knowledge development is self-referential, referring to what is known already, but also to what is considered as relevant in the world.[281] This idea underscores the anti-representationalism of an autopoietic epistemology. As a concept, self-referentiality implies that the environment of the organisation is determined by a cognitive distinction and not by an objective fact. Consequently, how reality is perceived in relation to the organisation is determined internally by the organisation. As knowledge development always refers to prior distinctions, existing distinctions will determine if environmental data is considered as noise, or considered as relevant and therefore incorporated in further distinctions. In this sense the relevance of data as representative of reality, viewed from the cognitivist paradigm, is challenged. Whereas the cognitivist view sees organisations as valuing all environmental data, and continuously attempting to increase its access to this data,[282] the autopoietic view argues that organisations will only recognise the value of data based on their pre-existing interpretations of the environment. This argument relates to the notion of a self-description of the organisation, which plays a central role in the self-referential process that characterises organisational knowledge.[283] Here, an organisational self-description defines the essence of how the organisation reflects on, and describes, itself and fundamentally draws a distinction between it and its environment.[284] In the practice of strategic management, von Krogh relates this self-description to the organisational identity as contained, amongst others, in its mission, vision, strategy and organisational culture. Through self-reference, this description forms the core of legitimising knowledge in the organisation, as it "*provides criteria for selecting what passes for 'knowledge.'*"[285]

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[279] Varela, F.J., Thompson, E. and Rosch, E. 1993:176

[280] von Krogh. G., Roos, J. and Slocum, K. 1994: 58, see also Maula, M. 2006: 49

[281] von Krogh. G., Roos, J. and Slocum, K. 1994: 58

[282] von Krogh, G. 1998: 134: "Knowledge was considered to be representations of a world that consist of a number of objects or events, and the key task of the brain (or any cognitive system) was to represent or model these accurately as possible . . . "Learning" meant the development of increasingly complete representations, and one knew that the cognitive system worked when its representations corresponded to the objects or events "out there.""

[283] von Krogh. G., Roos, J. and Slocum, K. 1994: 62

[284] von Krogh. G., Roos, J. and Slocum, K. also compare Luhmann, N. and Fuchs, S. 1988: 24

[285] von Krogh. G., Roos, J. and Slocum, K. 1994: 62

Organisational knowledge creation as an autopoietic process, however, requires more than a self-description as, contrary to autopoietic processes at the individual level, which are dependent only on a single being, organisational knowledge is shared, and distinctions must be maintained at the level of the organisation.[286] This requirement is contained in the notion of knowledge connections, which specify that, for the organisation to be able to act self-referentially in relation to prior distinctions, knowledge must connect at different points in time. While this is partially achieved through a self-description, it also involves both the formal and informal relationships that exist between members of the organisation.[287] In an autopoietic epistemology these social relationships are expressed through language, understood not as a vehicle through which knowledge is transferred, but rather as a process through which "*a consensual domain of behaviour*"[288] is created. To capture the dynamic nature of language, von Krogh identifies languaging as a process through which distinctions are organisationally agreed and maintained, but simultaneously subjected to being discarded. Where distinctions are agreed, they can be developed into further distinctions, thus advancing organisational knowledge. On the other hand, a lack of understanding of or disagreement about distinctions will result in them falling out of favour and being discarded.[289]

3.3   Theory of truth

An important consequence of anti-representationalism is that "*by accepting that there is not an objective reality, different standpoints are possible.*"[290] This represents a rejection of the idea that truth exists in relation to knowledge in any absolute or objective way. Knowledge creation therefore is not about attaining truth, but concerns the process of justifying belief so that it becomes accepted as truth in a specific context. In this sense truth is therefore just a distinction, or a word, which has meaning in a specific context.[291] This understanding of truth, and the foregrounding of justification, follows from von Krogh's adoption of Nonaka's interpretation of knowledge as justified true belief. In adopting this definition, von Krogh emphasizes the relational and relativized nature of knowledge, in this sense relating it back to the idea expressed in his autopoietic epistemology that knowledge is never context-free. Given this

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[286] von Krogh. G., Roos, J. and Slocum, K. 1994: 61

[287] von Krogh. G., Roos, J. and Slocum, K. 1994: 61-62

[288] Maturana, H.R. and Varela, F.J. 1980: 50

[289] von Krogh. G., Roos, J. and Slocum, K. 1994: 61

[290] Venzin, M. von Krogh, G. and Roos, J. 1998: 43-44

[291] Compare Christis, J. 2001

argument, he proposes that knowledge is created with the aim of addressing a specific issue, and as such truthfulness is not the primary criterion against which the adequacy of knowledge is judged.[292]

Truth in this view follows from justification; it is a status that is conferred on beliefs as a result of the justification process.[293] The acceptance of multiple truths in autopoietic epistemology implies that there is no absolute truth that can be obtained, and that multiple truths may exist in the organisation at any specific point in time.[294] The purpose of justification in this context is therefore to aid the process through which beliefs in the organisation become accepted as true.

3.4   Theory of justification

Von Krogh's theory of managerial justification draws on four propositions, which are incorporated into an overall theory that links justification to language as the means for knowledge creation in the context of an autopoietic epistemology. In proposing this theory, von Krogh elaborates on these four propositions through the notions of dominant logic and discourse. His departure point for the first proposition follows from the principal argument that an anti-representationist understanding of knowledge affords primacy to justification, rather than truth, in determining knowledge. Here he argues that this view of knowledge emphasises "*the need for permanent implicit and explicit justification*."[295] In this sense, knowledge creation cannot be understood without understanding the justification process, as it is through this process that "*new knowledge is rejected, returned or . . . appropriated*"[296] in an organisational context.

The requirement to understand knowledge creation in an organisational context, however, places limits on the ability of shared experience and mutual understanding to explain justification. A theory of justification therefore needs to explain how, in the absence of all

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[292] von Krogh, G. and Grand, S. 2000: 14: "*Corporate knowledge as Justified True Beliefs* [:] Consequently, corporate knowledge is about beliefs and intentions, relating to and relativized by a particular perspective. Knowledge is actualized and reproduced in order to address specific tasks or issues (Nonaka and Takeuchi, 1995). Therefore, its adequacy cannot be judged by its truthfulness, which would imply an objective position to evaluate. It is rather a question of justified true beliefs, emphasizing the need for permanent implicit and explicit justification."

[293] Compare Türtsher, P. 2008: 50

[294] Venzin, M. von Krogh, G. and Roos, J. 1998: 43 – 44: "Truth is not a main issue. By accepting that there is not an objective reality, different standpoints are possible.' "

[295] von Krogh, G. and Grand, S. 2000:14

[296] von Krogh, G. and Grand, S. 2000:15

organisational members sharing the same experience and understanding, justification takes place and knowledge creation is possible.[297] To elaborate on this von Krogh assigns a central role to the construct of dominant logic, formulating his second proposition: that knowledge creation cannot be separated from the role of dominant logic as the established base of knowledge in an organisation and the primary influence on justification in the organisation. This relates to his third proposition, namely that knowledge creation is regulated by both the dominant logic and the process of justification, as two core determinants of the manner in which organisational knowledge develops. The final proposition he puts forward is that the principles of justification that guide decision-making on the status of knowledge can be best understood as represented in everyday management discourse.[298]

3.4.1   Justification as central to knowledge creation

Drawing on Nonaka's approach to knowledge creation, the managerial approach takes as its primary departure point to organisational justification the view that knowledge is subjective in origin.[299] As such, any explication of knowledge involves a mode of knowledge sharing,[300] but is simultaneously constrained by its subjective nature, which implies that what is shared is an approximation of knowledge delimited by that which can be expressed.[301] Following Nonaka, von Krogh positions the starting point of organisational knowledge creation as tacit knowledge, which exists as personally justified true belief. When tacit knowledge is explicated, it becomes formalised as concepts which can be communicated in language.[302] In Nonaka's view of the KCC, this process of externalising tacit knowledge is however separate from justification, as the immediate process through which tacit knowledge is converted takes place in a narrow organisational context. In moving from tacitly held belief to organisationally accepted belief, the question that needs to be addressed is, how such narrowly accepted explicit knowledge

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[297] von Krogh, G. and Grand, S. 2000:14: "Justification is even more crucial when knowledge is intended to become organizationally relevant beyond individual activities. While individuals in a local context can base their judgement on shared experiences or personal relationships as source of trust and mutual understanding, the process of corporate knowledge creation essentially rely on processes of justification beyond shared personal experiences and situated mutual understanding . . ."

[298] von Krogh, G. and Grand, S. 2000:15

[299] Venzin, M. von Krogh, G. and Roos, J. 1998

[300] von Krogh, G. and Grand, S. 2000: 16

[301] Venzin, M. von Krogh, G. and Roos, J. 1998: 43

[302] von Krogh's incorporation of Nonaka's view of tacit knowledge is not without controversy as it exposes his theory of knowledge creation to the same criticism levelled at Nonaka with regards to the conflation of individual knowledge with tacit knowledge raised by authors such as Giroux, H. and Taylor, J.R. 2002, and Tsoukas, H. 2005.

becomes accepted as organisationally true? The organisational justification process therefore is characterised as bridging the basis for personal justification to a broader audience that does not share the same personal experiences. In this sense, it is a process of convincing others of the value (truth) of externalised tacit knowledge which subjects new knowledge to decision-making. It is these decisions that involve the acceptance, rejection or return of new knowledge.[303]

Knowledge, as argued by von Krogh, is, however, never context-free. Here the basic and general context of knowledge creation is represented by an existing base of knowledge which incorporates the accepted view of the organisation as "*frames and schemes*".[304] The frameworks established by the existing knowledge base serve to balance the organisational need to understand the situational complexity of the corporation, with the simultaneous risk of overwhelming the organisational worldview with complexity. While the knowledge base incorporates complexity, to ensure a sufficiently deep understanding of its situation, it simultaneously acts as a "*cognitive filter*" that simplifies elements of complexity into a worldview that can guide actions and decisions.[305]

To illustrate how the existing knowledge base, of accepted practice, serves as a framework and guideline for corporate action and decisions, von Krogh draws on evolutionary economic theory, the KCC theory and organisational learning theory.[306] Evolutionary economic theory provides the notion of organisational routines as representative of the largely unreflective behaviour an organisation engages in based on its experience of "*the best it knows and can do.*"[307] Such routines exist in three main forms: those concerned with operating procedures, financial decision-making and innovation.[308] As innovation in itself represents a routine, the established base of corporate knowledge provides organisations with a set of customary

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[303] von Krogh, G. and Grand, S. 2000: 16

[304] von Krogh, G. and Grand, S. 2000: 17

[305] von Krogh, G. and Grand, S. 2000: 17: "This knowledge base includes frames and schemes which are complex enough to create a rich picture of the actual corporate situation, while providing cognitive filters to reduce the external and internal complexity to a coherent worldview guiding major decisions and corporate activities."

[306] von Krogh, G. and Grand, S. 2000: 17: "Corporations have to develop and to maintain their existing knowledge base at the fundament for acquiring new knowledge as well as for developing successful corporate routines (Nelson, 1995), for generating necessary redundancy (Nonaka and Takeuchi, 1995), as well as for recognizing and structuring new information (Cohen and Levinthal, 1990)."

[307] Nelson, R. R. 1995: 69

[308] Nelson, R.R. 1995: 69

behaviours for the acquisition of new knowledge.[309] Both the KCC and learning theory further relate the established knowledge base to the organisation's accepted approach to new knowledge. In the KCC the concept of redundancy serves as an enabling condition of knowledge creation. The existing knowledge base in this instance represents a common framework of reference, which encompasses a broader notion of organisational understanding than that which is only of relevance to organisational members' immediate areas of performance. This overlapping access to organisational information aids both understanding and communication.[310] Finally, in drawing on organisational learning theory, von Krogh relates the existing knowledge base to the ability of the organisation to absorb and learn when new knowledge is encountered. In this learning system, organisations maximise their ability to benefit from new knowledge by relating it to a diverse base of existing knowledge. This implies that an organisation that has gained knowledge through experience in a specific field, is better suited to recognise the potential of new knowledge in this field.[311]

Knowledge creation takes place in this context of the prevailing view, but simultaneously implies the development and revision of established notions.[312] As implied by the concepts of redundancy and learning, knowledge is more readily accepted if there is some form of existing appreciation of its relevance. The paradox inherent in knowledge creation however results from precisely this condition, as any alternatives represent a contradictory or conflicting challenge to the established knowledge, which serves as a condition of its acceptance in the first instance. As such, the incorporation of new knowledge is not a seamless process of integration into an existing frame of reference, but rather is characterised by the tension inherent to taking decisions that may fundamentally alter an existing world view. In this interpretation of knowledge creation, von Krogh positions justification processes as mediating the contradiction between accepted knowledge (which is required to recognise new knowledge) and the requirement to transcend the existing knowledge base to create new knowledge. Justification therefore represents a dynamic of the organisational knowledge creation process which encompasses practices through which new knowledge is judged.[313] The three possible outcomes of this (acceptance, rejection or return) represent a decision-making process that

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[309] von Krogh, G. and Grand, S. 2000: 17

[310] von Krogh, G. and Grand, S. 2000: 17 and Nonaka, I. 1994: 27-28

[311] Cohen W.M. and Levinthal, D.A. 1990: 128-129

[312] von Krogh, G. and Grand, S. 2000: 17

[313] von Krogh, G. and Grand, S. 2000: 15 & 17

evaluates new knowledge to determine its value to the existing base of knowledge. Where new knowledge is considered to be irrelevant it is rejected; where it is potentially relevant but not clearly so, it is returned for re-evaluation; and finally, where it is accepted it is incorporated into the existing knowledge base.[314]

3.4.2   Dominant logic

In managerial justification theory, the established base of knowledge is understood in terms of the concept of dominant managerial logic.[315] As a construct dominant logic originates in the sphere of strategic management research into organisational performance and the firm's ability to deal with diversity.[316] Conceptually it represents a shared framework among top management in an organisation that develops from experience and is reinforced by past successes, which in turn gives rise to a set of preferences for organisational behaviour.[317] These preferences find expression in a core set of assumptions regarding the business, the evaluative criteria for judging success and the influence of past achievements on managerial thinking. Through acting as a representation of accepted truth in a particular organisational context, the dominant logic characterising an organisation has been justified, and as such appropriated as organisational knowledge.[318]

In the context of organisational justification von Krogh[319] isolates the origin, function and characteristics of dominant logic as primary to understanding its influence on knowledge creation. The origin of dominant logic is located in the presence of a dominant coalition as a collection of individuals that exert considerable influence on the management of an organisation. Within the dominant coalition, the contextually based understanding resulting from past experience prevails and gives rise to a set of "*ideas and interests*"[320] that acts as the guiding framework for organisational action. Organisational behaviour, in this sense, becomes an enactment of the dominant logic which functions to improve the efficiency and speed with which decisions are taken. This enactment is however an almost subconscious process of doing, with little explicit realisation of the underlying structure that dominant logic provides to

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[314] von Krogh, G. and Grand, S. 2000: 18

[315] von Krogh, G. and Grand, S. 2000: 19

[316] Bettis, R.A. and Prahalad, C.K. 1986: 499

[317] Bettis, R.A. and Prahalad, C.K. 1986: 491 - 492

[318] von Krogh, G. and Grand, S. 2000: 19

[319] von Krogh, G. and Grand, S. 2000: 19 - 20

[320] von Krogh, G. and Grand, S. 2000: 19

corporate processes and procedures. This leads the author to question the possibility that decision-making is characterised by either rationality or corporate politics.[321]

3.4.2.1 Dynamic of dominant logic

As knowledge development primarily represents the interaction between dominant logic and new knowledge, which simultaneously builds on accepted notions and challenges them, von Krogh proposes that dominant logic is a dynamic construct constituted by three core dimensions.[322] First among these is the corpus of knowledge, which represents the "*basic content of some dominant logic*".[323] As a feature, the corpus of knowledge draws on the notion of paradigm[324] and specifically its application in strategic management as a source of dominant logic in business.[325] In this interpretation, the corpus of knowledge represents that which is believed to be true by an organisation, and the ability of members of the organisation to justify this knowledge. These sets of shared beliefs focus on, amongst others, the context of the organisation and the criteria for successful action in this context. In each instance, beliefs are substantiated through argument and narrative that support the overarching belief structure characteristic of the corpus of knowledge.[326] The latter establishes the link between the corpus of knowledge and the second component, images of knowledge, which largely represents the organisation's tacit assumptions about the nature of knowledge. As such it relates to the accepted criteria for legitimizing knowledge and the required evidence to be provided in this process. From the perspective of process, images of knowledge will prescribe the method of justification as argument, explanation or appeal. They will secondly determine the necessary criteria to invoke, such as tradition, rationality, authority, innovation or analogy. Finally, they

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[321] von Krogh, G. and Grand, S. 2000: 20: "As a result, the concept of dominant logic would cast doubt upon the idea that resource allocation and investment decisions are the result of a rational evaluation process or the outcome of corporate power-plays of self-interested individuals."

[322] von Krogh, G. and Grand, S. 2000: 20 - 21

[323] von Krogh, G. and Grand, S. 2000: 21

[324] von Krogh, G. and Grand, S. 2000: 21-22: "This corresponds by what we understand by paradigms (Kuhn, 1962 [1970]), including the explicit contents of what is known by a corporation and can be partially explained by the people involved."

[325] Bettis, R.A. and Prahalad, C.K.1986: 492: "The concept of dominant logic also derives direct support from Kuhn's (1970) work on scientific paradigms . . . Kuhn, a historian of science, argued that a particular science at any point in time can be characterized by a set of 'shared beliefs' or 'conventional wisdom' about the world that constitutes what he called the 'dominant paradigm'."

[326] von Krogh, G. and Grand, S. 2000: 22; also see Bettis, R.A. and Prahalad, C.K. 1986: 492

determine the evaluative dimension for the method and criteria, including, amongst others, financial return, industry trends and stakeholders.[327]

The evaluative dimension relates images of knowledge to the final component of dominant logic, namely, the ideological values that characterise the organisation. These ideological values are contained in the organisational culture and the guiding vision, which position the organisation in a particular context. As a regulating factor on knowledge evaluation, the ideological values determine the basic reference points for claims to knowledge and the relevance of specific methods of justifying knowledge.[328]

To von Krogh the importance of understanding dominant logic and its components in relation to the justification of knowledge, stems from the variety of methods and evidence that may be invoked in justifying new knowledge. While different approaches may all result in justified belief, dominant logic regulates the possibility of acceptance of new knowledge in a particular organisational context. In this sense, it prescribes the most likely route to ensuring acceptance of a knowledge claim. However, dominant logic is not presented as a conscious ongoing process of surface reflection, but rather incorporated into managerial action and discourse, as a self-evident and accepted mode of organisational behaviour.[329] As such, the corpus and images of knowledge, as well as the ideological values of the organisation, are portrayed in the quotidian practice and discourse of organisational life. Here the core features of dominant logic act as resources for organisational members' own interpretations, arguments and ideas. To understand the role of dominant logic in justification, it is therefore necessary to understand how the patterns contained therein are both reproduced and transformed through the process of knowledge creation.[330]

3.4.2.2 Dominant logic and plurality

In as much as dominant logic acts as a source of cohesion for organisational decision-making, it represents a variety of organisational actions that are structured by it. These actions find expression in the routine managerial discourse characterising the organisation and are subject to processes that homogenise managerial action and discourse into an underlying dominant

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[327] von Krogh, G. and Grand, S. 2000: 22

[328] Von Krogh, G. and Grand, S. 2000: 21 - 23

[329] von Krogh, G. and Grand, S. 2000: 23

[330] von Krogh, G. and Grand, S. 2000: 24

logic that characterises managerial practice.[331] It is these homogenising processes that represent the dynamic of justification which determines the status of new knowledge. In evaluating the mechanisms that act on mundane management practice to reproduce dominant logic, von Krogh draws on Foucault's poststructuralist interpretation of discourse practices.[332] Here he associates the everyday patterns of managerial discussion with three procedures that act as constraining factors that elucidate the underlying dominant logic:

a) Procedures of exclusion constitute the influences on managerial discussions that demarcate the boundaries between that which will be considered acceptable and unacceptable in a particular context. Concerning both the form and content of discourse and prescribing how justification should take place and what is considered valid evidence, they relate back to the images of knowledge as a constituting element of dominant logic. Procedures of exclusion are contextually determined and consequently may vary depending on the particularities of the setting in which discourse takes place, such as the organisational hierarchy or business context.[333]

b) Procedures of self-control represent the internal processes that regulate organisational discourse through exercising control over arguments and interpretations. Fundamentally they represent patterns in discourse that aim at disciplining and regularising arguments in order to achieve consistency and standardisation of interpretation. They present themselves as debates that question the basis and coherence of arguments that have been put forward. In this sense procedures of self-control generate the corpus of knowledge and relate images of knowledge to criteria for truthfulness.[334]

c) Conditions of involvement[335] relate managerial discourse to the concrete environment in which it takes place, involving those procedures and rules that stipulate who in an organisation will have access to justification procedures. They involve on the one hand formal procedures, and include elements of organisational hierarchy and design that determines access to discourses and the locus of research and innovation; while on the

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[331] von Krogh, G. and Grand, S. 2000: 24-25: "By legitimatizing their ideas and new approaches, managers relate concrete situations to possible interpretations in terms of the established organisational knowledge."

[332] von Krogh, G. and Grand, S. 2000: 25 – 26, also see Hook, D. 2001

[333] von Krogh, G. and Grand, S. 2000: 26

[334] von Krogh, G. and Grand, S. 2000: 26

[335] von Krogh, G. and Grand, S. 2000: 26 refers to this as Conditions of '*Mise en Jeu*'

other also reflect informal networks that influence "*communication, discussion and decision making*."[336]

In summary, the plurality of schemata that are represented in an organisation is restrained by the above procedures and conditions which act to confer on them the characteristics of the dominant managerial logic. Through this, everyday managerial action reinforces the existing dominant logic.[337]

3.4.3   Justification of new knowledge: subverting dominant discourse

As in the preceding arguments the implications of a Foucauldian view of discourse provides managerial justification theory with a basis for conceptualising dominant logic as a system that reproduces itself;[338] however, the Foucauldian view simultaneously implies that the constraining rules on discourse limit the introduction of novelty and innovation.[339] In order to position the justification of new knowledge within the limits imposed by this view, von Krogh applies Foucault's principles of analysis as the means to subvert dominant discourse. Broadly speaking, he views the opportunity for subversion as located in "*ambiguous and paradoxical argumentation patterns, metaphorical forms of argument and analogies*."[340]

Theoretically, this idea of destabilising the existing order draws on Foucault's concern with the power of critique that stems from peripheral knowledge. As peripheral knowledge has been rejected by the current practices of justification, it is fundamentally reflective of the dynamics of power in maintaining the status quo of established knowledge. This bestows on peripheral knowledge the characteristic of being unrestricted by the prevailing discourse, which in turn allows this knowledge to be enlisted against the power relations exerted and maintained through the dominant discourse.[341] The project in which Foucault proposes to enlist peripheral knowledge, is intended as a methodology based on the epistemology of critique. Here the

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[336] von Krogh, G. and Grand, S. 2000: 27

[337] von Krogh, G. and Grand, S. 2000: 25 & 27

[338] Compare Hook, D. 2001: 02-03: ". . . discourse itself is both constituted by, and ensures the reproduction of, the social system, through forms of selection, exclusion and domination"

[339] Compare Hook, D. 2001: 09-10: "Foucault's suggestion here is that we over-play the importance of originality and freedom in everyday discourse when in fact much of what is spoken is really the product of repetition, discursive 're-circulation'. By playing up the 'finitude of discourse', Foucault is making us aware of the presence of the limits within which we speak. As such, the questions of innovation, novelty, our presumed ability to utter whatever we will, refers not merely to what is said, but instead to the reappearance of what has been said before (Foucault, 1981a)."

[340] von Krogh, G. and Grand, S. 2000: 27

[341] Hook, D. 2005: 05-06

overarching objective is to assemble peripheral knowledge in service of critique against the dominant discourse, with specific emphasis on the ability to bolster critique in a coordinated onslaught on the coercion embodied in dominant discourse.[342] In support of the epistemology of critique, Foucault identified four principles that form the basis of his discourse analysis. While Foucault conceived of the principles as a methodology to enable critical analysis of knowledge and power, von Krogh adapts these as characteristics that bestow on dominant logic a porosity which enables it to be infiltrated by new knowledge. In this regard his proposal is based on two core assumptions. Firstly, the subversive strategies (Foucault's principles) are a precondition for the justification of ideas that fall outside of the dominant logic. Secondly subversion is not equated with displacement of the dominant logic, but rather with a "*shift towards new formations, gradually opening up for argument which have so far been excluded.*"[343] These four principles as originally conceived by Foucault,[344] and their interpretation in the context of managerial justification, are elaborated on in more detail below.

3.4.3.1 Principle of reversal[345]

In enabling a critical understanding of discourse, the principle of reversal focuses on the orders of discourse and particularly their formation; the role they play in serving interest; their effectiveness in constraining discourse as well as how modification, displacement and evasion of these processes take place.[346] The subversive nature of this principle relates to the connotation of reversal as enabling an exposition of how processes and procedures, considered to be enabling of discourse, act as negative inhibitors through limiting and rarefying discourse.[347] The focus of analysing discourse repositions discourse from what is presented as text, and therefore included in discourse, to that which is purposefully excluded from discourse.[348] Through this Foucault conceives of discourse as an event, and argues for the analysis of discourse as constitutive of a plurality of influences. The ultimate objective of

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[342] Hook, D. 2005: 07

[343] von Krogh, G. and Grand, S. 2000: 27

[344] As will be argued later in this chapter Foucault's intention with the principles of discourse essentially focusses on a reading of discourse as maintaining certain interests. von Krogh's application of Foucault's principles does not support this foregrounding of power relations, but rather focusses on its ability to destabilise accepted justification criteria

[345] Note that von Krogh, G. and Grand, S. 2000 refers to these principles in the original French, whereas in this thesis the English translation as published in Young, R. 1981 is used

[346] Foucault, M. 1981: 70

[347] Hook, D. 2001: 17

[348] Ahl, H. 2007: 223

analysing discourse through this principle is to lay bare the influence of power and politics by delving ever deeper into its origins and through this to identify how exclusion acts on discourse.[349]

In managerial justification theory, this principle is largely interpreted in terms of the potential to raise that which is excluded from a discourse as relevant arguments in justifying new knowledge. Here, reference to excluded images and beliefs is introduced to discourse through referring to counter arguments dealing with possible objections. In this sense discourse is implicitly characterised by its reference to the "*excluded and reverse*."[350] Consequently, that which is not considered as core to the corpus and images of knowledge still forms part of the discourse in as far as it exists as beliefs and images that are not viewed as sufficient reasons for justification. This allows managers to access that which is excluded as "*potentially relevant to certain issues*."[351]

3.4.3.2 Principle of discontinuity

The Foucauldian perspective of discontinuity in discourse positions the development of discourse outside of the realm of unilinear progression and instead proposes that discourse consists of a series of parallel and discontinuous components. As a perspective on elucidating the underlying power structure and interests, the principle encompasses scepticism toward linear coherence and progression in the development of discourse. This specifically derives from the argument that attempting to understand the historical roots of discourse as a system of linear causality, results in the retro-fitting of current value systems onto historical contexts.[352] For Foucault, the methodological approach to avoiding this lies in the recognition of the breadth of discourse, as represented in a series of parallel components, existing in both textual and non-textual discursive elements. This notion of discourse as a series draws attention to the possibilities of discontinuity and contradiction in the functioning of the parallel components, in relation to the discourse. In this sense, Foucault positions the development of discourse away from a logical flow from one point to the next, and raises awareness of the points of vulnerability in discourse. While each series in the discourse has the characteristics

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[349] Hook, D. 2001: 18

[350] von Krogh, G. and Grand, S. 2000: 28

[351] von Krogh, G. and Grand, S. 2000: 28

[352] Hook, D. 2001: 21 – 23 and Hook, D. 2005: 10

of homogeneity, the discourse that is constituted by this is diverse. It is in this diversity that the potential for contradiction and discontinuity exists.[353]

Von Krogh uses this principle to argue that while the narratives that form part of the corpus of knowledge are presented as continuous and consistent, there is a realisation among employees that this unified view is a social construction, rather than a reflection of experience. This realisation follows from the discrepancies between personal experience and the organisational narratives presented. In context of dominant logic, these narratives exist in the success stories and examples invoked to justify knowledge. However, the realisation of, on the one hand, the constructed nature of these organisational narratives, and on the other, the extent to which these constructions function as interpretations of the organisational past as a seamless history, enable employees to identify "*open spaces, inconsistencies and contradictions.*"[354] Unlike the other principles von Krogh does not explicitly state how this strategy enables the introduction of new justification criteria. However, in concluding on the implications of the theory of managerial justification, he indicates that awareness of the socially constructed nature of organisational reality "*opens up the discussion to critical reflection and systematic comparison.*"[355] Applying this insight to the principle of discontinuity, one can therefore argue that awareness of the discontinuity in organisational narratives provides the space to introduce a discussion on alternative interpretations, which may result in the introduction of new justification criteria. Such an interpretation would be consistent with the understanding that Foucault's approach to discourse analysis is ultimately aimed at uncovering alternatives to the dominant discourse, not as a means to elucidate *the* truth, but as a means to propose differing views from which the contribution can be evaluated.[356]

3.4.3.3 Principle of specificity

With the principle of specificity Foucault draws attention to the constructed nature of truth and meaning through discourse. As a principle of analysis, specificity relates discourse to the relativist view that notions of truth and meaning do not exist independently in the world to be discovered through discourse, but are of themselves products of discourse.[357] At the same time,

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[353] Hook, D. 2001: 21 – 23 and Hook, D. 2005: 10

[354] von Krogh, G. and Grand, S. 2000: 28

[355] von Krogh, G. and Grand, S. 2000: 32

[356] Compare Ahl, H. 2007: 224: "The discourse does not hide any unknown truth – a series of discourses, sometimes connected, sometimes not, is all there is. This means that a discourse analysis can only result in an alternative story, the value of which is to be judged by ethical, moral or perhaps aesthetic standards."

[357] Hook, D. 2005: 10

the principle of specificity grounds discourse in both text and practice, and represents an argument for a shift from language as the primary signifier of discourse, to an understanding of the physical and material manifestations of discourse. Knowledge and truth, in this sense, needs to be understood as part of a discursive practice that includes action. Here discourse is understood to have material effects that are visible in practice and action, as a reflection of a socially constructed truth which represents the "*right thing to do.*"[358]

Managerial justification theory applies this principle in arguing that dominant logic, as expressed in discourse, serves the function of disciplining, informing and reproducing itself in mundane organisational activity. Dominant logic in this sense is thus seen as embedding itself in organisational activity. For von Krogh, awareness of the former allows organisational members to challenge the impact of dominant logic on the basis of its consequences. An understanding of how dominant logic reproduces itself in practice, in turn reveals the potential for changing it.[359]

3.4.3.4 Principle of exteriority

In essence exteriority is an argument for a movement away from analysing the depth of discourse as text, toward understanding the breadth of discourse as circumstances. As with the principle of specificity, there is a requirement for the focus to shift from text, but this time to the enabling circumstances of a discourse. In this sense, it relates back to the principle of discontinuity which has established discourse as arising from variety.[360] Exteriority focusses on the understanding of how these exterior elements to the discourse represent "*overlapping forms of support*"[361] which simultaneously define the limits of discourse and the possibility of discourse. The principle therefore invokes the requirement of an understanding of the conditions exterior to a discourse, which enables the statements made as part of a discourse. These exterior factors again focus on discourse as more than text, in as far as it considers the "*material historical and institutional circumstances*"[362] that enable discourse.

For von Krogh exteriority in management discourse is represented through the identification

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[358] Fadyl, J.K., Nichols, D.A. and McPherson, K.M. 2012: 488

[359] von Krogh, G. and Grand, S. 2000: 28: "Discourses . . . must be understood as disciplining everyday activities. By understanding how discourses form these activities, one can start to challenge the local consequences of discursive formations."

[360] Hook, D. 2001: 34

[361] Hook, D. 2005: 10

[362] Hook, D. 2005: 10

of patterns in the discourse beyond the text. This function is performed through "*reflexive thematization*"[363] which introduces a perspective that is removed from the pure interpretation of the immediate text. This follows from discourse not only representing the corpus of knowledge (text), but also the images and ideological values inherent to dominant logic. The introduction of a broader perspective, aimed at understanding the influences on discourse, exists in observations in the form of "*jokes about certain arguments, comment on . . . activities, and evaluat[ing] the patterns which crystallize in meetings and discussions.*"[364] The thematization facilitates the identification of arrangements impacting on discourse, which is crucial if transformation is to be achieved.[365] Following the general argument presented by managerial justification, that the acceptance of new knowledge requires the introduction of alternate justification criteria, such an introduction would then too be dependent on an understanding of how dominant logic acts to reinforce itself in discourse, and where in this process there is opportunity to introduce alternatives to destabilise the hold it has on established patterns of managerial decisions.[366]

In summary, von Krogh presents discourse and the introduction of new justification criteria as a process that simultaneously needs to a) refer to what is acceptable justification criteria (as encompassed in the dominant logic), and b) attempt to expand this through the use of certain strategies. An attempt to legitimise knowledge as organisationally valid, therefore, first lies in realising the constructed nature of dominant logic. This realisation enables identification of areas of permeability where dominant logic can be infiltrated, so that new criteria can be integrated to facilitate the justification of new knowledge claims. Influencing dominant logic, in this sense, becomes a process of identifying the functions, patterns and actions resulting from discourse, and understanding the potential that the constructed nature of these offers for altering existing beliefs on the nature and legitimisation of knowledge.[367]

3.4.4 Dominant logic as resource and language game

An important outcome of managerial justification theory's interpretation of dominant logic is the repositioning of the function of dominant logic in management strategy. Here von Krogh argues for an understanding of dominant logic not as a screening mechanism as intended by

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[363] von Krogh, G. and Grand, S. 2000: 28

[364] von Krogh, G. and Grand, S. 2000: 28 - 29

[365] von Krogh, G. and Grand, S. 2000: 29

[366] see von Krogh, G. and Grand, S. 2000: 27

[367] Compare von Krogh, G. 2009

Bettis and Prahalad, but as a resource.[368] In relation to the former, Bettis and Prahalad proposed that dominant logic functions as a filter which focusses "*organizational attention . . . only on data deemed relevant by the dominant logic*."[369] Contrasting with this, von Krogh argues for the positioning of dominant logic as a "*resource . . . and language game . . . which allow actors to interpret and evaluate complex situations, to grasp the intentions of others, to achieve intersubjective understanding and co-ordinated actions*,"[370]

This reinterpretation of dominant logic draws on the anti-representationalism inherent to von Krogh's autopoietic epistemology.[371] As an argument it relates to an earlier analysis by von Krogh concerning Bettis and Prahalad's own repositioning of dominant logic away from the original notion of a representationalist structure. Here von Krogh argues that in the development of the concept of dominant logic Bettis and Prahalad redefine the world in which the organisation functions as one that does not exist independently of managerial perception. Rather "*the business world for a manager is neither pre-given, nor predefined*."[372] This reconceptualisation provides the basis for arguing that dominant logic essentially incorporates a view of knowledge as a socially constructed phenomenon, as evidenced through the emphasis placed on contextuality and historical dependency. More importantly though, it enables von Krogh to argue that dominant logic is an essentially self-referential process.[373] As a self-referential process, dominant logic does not act as a filter imposed onto an external environment, but rather represents a resource that is referenced (existing knowledge) in order to make sense of what is observed.[374] This allows dominant logic to be conceived as an enabler of an organisational member's ability "*to interpret and evaluate complex situations*".[375]

The second element in the reconceptualisation of dominant logic is to position it in the context of language games. This shift relates dominant logic both to the concept of languaging,[376] as

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[368] von Krogh, G. and Grand, S. 2000: 29 and von Krogh, G. and Roos, J. 1996

[369] Bettis, R.A. and Prahalad, C.K.1995: 07

[370] von Krogh, G. and Grand, S. 2000: 29

[371] von Krogh, G, and Roos, J. 1996

[372] von Krogh, G. and Roos, J. 1996: 732

[373] von Krogh, G. and Roos, J. 1996: 734

[374] von Krogh, G. and Roos, J. 1996: 733

[375] von Krogh, G. and Grand, S. 2000: 29

[376] von Krogh's notion of language game appears as a synonym for the concept of languaging, as both are defined as: "refer[ring] to the process by which language is not only maintained but is constantly being created within the firm, based on previous language." Compare von Krogh, G. and Roos, J. 1994: 61 and Roos, J. von Krogh, G. and Yip, G. 1994: 400

introduced in autopoiesis, while also providing the basis for consolidating the argument that organisational knowledge, in the context of managerial justification theory, is underpinned by social action.[377] In this view, language acts as the means through which "*intersubjective understandings and co-ordinated actions are achieved*".[378] As discussed earlier, von Krogh, in identifying an autopoietic epistemology, focussed on languaging as the means through which organisational knowledge is maintained and distinctions are developed. The introduction of the notion of language games expands on the function of language in organisations, by focussing on how language enables mutually agreed representations and actions. Here, the specific concern is to understand how von Krogh's notion of dominant logic as a language game relates back to the co-ordinating function that autopoiesis assigns to language.[379]

For von Krogh language games refer to the self-referential manner in which language develops, and in this sense it is a restatement of the idea that distinctions are maintained or discarded in language between organisational members. In this context, the meaning of a distinction (a word) is determined by the context in which it is used, and not the object to which in relates in the world. Meaning here is derived in the context of rules that govern the use of words.[380] For example, all organisations have a set of rules that govern the use of the term innovation. The rules maintain a basic distinction between innovation and what is not innovation,[381] i.e. innovation versus improvement or imitation. Therefore, in relation to a particular proposal, one would have to consider which criteria need to be met (rules) to term the proposal an innovation or an improvement. From this it follows that one of the fundamental characteristics of words in language games is therefore that meaning is locally determined rather than universally true.[382] If one considers dominant logic as a language game, it represents rules that need to be observed in discourse to enable shared understandings.

The second characteristic of language games, that relates it to dominant logic, is the extent to which both exhibit the same contradictory characteristic aimed at simultaneously sustaining

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[377] Note that von Krogh, G. and Grand, S. 2000 does not expand on the concept of language games in their theory of managerial justification. In the context of this research this discussion is however introduced to facilitate further understanding of how their notion of dominant logic relate back to the autopoietic view of knowledge

[378] Von Krogh, G. and Grand, S. 2000: 29

[379] Midgley, G. 2000: 55

[380] Roos, J., von Krogh, G. and Yip, G. 1994: 400

[381] This observation draws on Luhmann's notion of self-description (Luhmann, N. and Fuchs, S. 1988)

[382] Roos, J. von Krogh, G. and Yip, G. 1994: 400 - 401

and challenging the status quo. Magalhães[383] elaborates on the dual function of language games, by referring to the need for languaging to both create the organisational identity, but simultaneously provide the means through which new distinctions maybe developed, that may result in challenges to the very distinctions from which it draws.[384] This same contradiction is found in the process of justifying new knowledge in the context of dominant logic, where, as argued earlier, justification is essentially a "*contradiction between relating new insights and ideas to some established dominant [logic] . . .*".[385] This understanding of justification gives expression to the argument that dominant logic, as a language game, provides the interpretative context for deciding if data is integrated into organisational knowledge as new information.[386]

3.5 Implications

Managerial justification theory provides a conceptual framework for understanding justification in a particular form: the justification of external knowledge in a given organisation, in an attempt to ensure it is accepted as knowledge, within the boundaries of this specific organisation. Von Krogh proposes that this process takes place through discourse that is self-referential with regards to an existing dominant logic, which is simultaneously maintained but subject to gradual change. In establishing such a strong focus on justification practices, von Krogh emphasises the need for understanding how mundane activities impact the success or failure of new knowledge claims. His overall objective in this regard becomes one of raising awareness of the inhibiting role that accepted practice and discursive patterns play in allowing development of new justification criteria that support organisational knowledge acceptance. This approach is particularly evident in the work von Krogh has published since his managerial justification theory, which focusses on how organisations can create environments that are conducive towards the justification of new knowledge.

A consequence of the fundamental assumption that organisational knowledge exists only in a social context, and the related notion that individual knowledge is inseparable from the

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[383] Magalhães, R. 1999: 23

[384] This results from distinctions always developing self-referentially, i.e. a new distinction always needs to draw on a previous distinction

[385] Von Krogh, G. and Grand, S. 2000: 20

[386] Compare the description of the role of languaging in facilitating change in autopoietic system in Magalhães, R. 1999: 232

knowing individual, is that knowledge as such cannot be directly managed.[387,388] Instead, the requirement for knowledge management shifts to the management of justification and discourse. This implication is specifically pertinent in von Krogh's work in relation to care and enablement. Drawing on the requirement that organisational justification takes place in a social context, von Krogh views the process of justification as a *highly fragile process.*[389] The underlying reasons for the fragility of justification can be related back to von Krogh's conceptualisation of dominant logic, specifically in relation to the extent that as the accepted basis of knowledge in the organisation it presents a barrier to the adoption of new knowledge.

3.5.1   Awareness of implicit assumptions

A central argument in von Krogh's conceptualisation of dominant logic is the extent to which it is actualised in mundane managerial practice. As a construct in organisations, it is therefore conceptualised as an almost unconscious set of tacit assumptions that expresses itself in organisational behaviour. Any attempt at improving justification practices requires awareness of the nature of dominant logic and its influence on managerial practice.[390] The perceived embeddedness of dominant logic tends to convey onto its understanding in organisations an "objective" character. In this sense dominant logic is perceived as a factual representation of an external reality, rather than a social construction. A core requirement of improving justification practice is therefore first of all the realisation that dominant logic is locally produced and therefore contestable. Through creating awareness of the contingent and constructed nature of dominant logic, opportunities are created to reflect critically and systematically on how justification of knowledge claims takes place at the organisational level.[391]

Awareness of, and reflection on, the nature of dominant logic supports an understanding of the consequences and biases inherent in the justification processes inherent to organisations. Here, for example, it is possible to argue that the privileging of "scientific" over local knowledge as

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[387] Sveiby, K.E. 2001. 347: "Since knowledge cannot be managed the knowledge strategist looks at enabling (von Krogh *et al.*, 2000) activities rather than command-control activities."

[388] Gourlay, S. 2001:34: "If knowledge is inseparable form people since it is created only by individuals and groups in self-sustaining processes, or in or by the mind, this implies that 'knowledge' itself cannot be managed – only the conditions under which it exists can be influenced."

[389] von Krogh, G. 2009: 135

[390] von Krogh, G. and Grand, S. 2000: 31: "The explicit confrontation between different dominant logics as well as scientific paradigms is a precondition for reflecting the implicit assumptions and unreflected fundaments which shape most actual positions, approaches and statements."

[391] von Krogh, G. and Grand, S. 2000: 32

described by Yanow[392] can be understood as part of an unreflective expression of dominant logic evident in many organisations. In this regard, Yanow questions why so many organisations fail to recognise, and use, local knowledge, but instead prefer to procure, at great cost, so-called expert knowledge. She locates the reasons for this in the embeddedness of, amongst others, organisational values that reflect and underpin a distinction between universal, detached knowledge and local, personal knowledge. These distinctions reinforce themselves in organisational practice through the distinction between management and line workers, and in work structured around thinking and doing.[393] Viewing these knowledge distinctions as essentially representative of images of knowledge in the dominant logic, it becomes clear that partiality towards "scientific" knowledge is a consequence of a set of beliefs enacted through managerial practice that knowledge legitimised by scientific approaches is superior to knowledge gained through experience. In the context of justification criteria, raising consciousness of the extent to which "scientific" knowledge represents a belief that is labelled as true for the organisation, opens the way for debate and critical reflection on how this, as part of dominant logic, impacts the justification process and in turn hampers or enables knowledge creation in the organisation.

3.5.2   Care, enablement and understanding

Related to fragility associated with justification, von Krogh identifies among the barriers that have to be overcome in an organisational context, the use of legitimate language, organisational narratives, habits and routines, as well as the organisational paradigm.[394] In reading von Krogh's description of how these act as barriers, the relationship to dominant logic is self-evident. For example, the justification of new knowledge needs to take place in the context of "*language that is known and acceptable . . . However some personal knowledge can only be expressed by using words that are unknown.*"[395] This largely expresses the need for introducing new distinctions through languaging, while observing the rules of the language game of dominant logic. Similarly, the dimensions of dominant logic as an obstacle to justification is evident as "*Personal knowledge that conforms with the paradigm will be quickly embraced . . . nonconformist attempts to justify personal beliefs are often met with skepticism.*"[396]

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[392] Yanow, D. 2004

[393] Yanow, D. 2004: S20-21

[394] von Krogh, G. 2009: 135-136 and von Krogh, G., Ichijo, K. and Nonaka, I. 2000: 35-36

[395] von Krogh, G. 2009: 135

[396] von Krogh, G., Ichijo, K. and Nonaka, I. 2000:36

Viewed from the point of view of dominant logic as governing justification, the concepts of enablement and care can therefore be interpreted as an argument to incorporate into dominant logic values, images, stories and arguments that are supportive of justification and through this facilitate organisational knowledge creation. By consciously incorporating supportive elements, the dominant logic as a resource in a self-referential knowledge process enables a broader array of concepts to be understood as potentially relevant to the organisation.[397]

3.5.3   The strategic imperative: justification in support of advancement

The autopoietic epistemology in which von Krogh's theory of managerial justification originates has at its base a concern with the value of knowledge to the long term progression of organisations. In this regard von Krogh proposes that organisations in the KE need to pay increasing attention to the development of knowledge as a fundamental prerequisite for organisational advancement. Due to the increasingly important role that knowledge plays in the ability of organisations to thrive in the KE, it is the processes through which organisations create knowledge which form the basis of their competitive advantage.[398] Progress in this approach becomes a function of the ability of management to effectively harness organisational knowledge and nurture its development to enable organisational competitiveness. Knowledge development is therefore a managerial concern, and, as von Krogh perceives organisational justification as representing the most significant barrier to effective knowledge development, he proposes that this phase in knowledge creation receives specific managerial attention.[399]

From a strategic point of view, the potential of dominant logic to act as in inhibitor of organisational advancement is evident when considering that the barriers it represents to the justification of knowledge can lead to significant losses for a firm. In this regard von Krogh refers to two negative consequences that result from rigidity in dominant logic as the guiding structure affecting justification.[400] Firstly, it can act against the expression of knowledge claims as a result of reinforcing negative narratives of failure and strong adherence to organisational process. In this instance, as compliance is valued over novelty, ideas seldom mature, and firms risk their knowledge base becoming stagnant. Secondly, in reaction to a rigid justification environment employees behave in one of two ways: they either accept the situation, thereby

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[397] von Krogh, G., Ichijo, K. and Nonaka, I. 2000: 98 - 101

[398] von Krogh. G., Roos, J. and Slocum, K., 1994

[399] von Krogh, G. 2009: 135-136

[400] von Krogh, G. 2009: 136

becoming "*passive participants*," or they leave the organisation. Given that managerial justification theory holds that knowledge resides in individuals (even if its organisational construction is social), both of the former outcomes translate into a loss of potential advantage for the organisation. In the first instance, the requirement that organisations create new knowledge cannot be realised under circumstances where organisational members withdraw from the process of knowledge creation. Secondly, when organisational members resign out of frustration with justification processes, it introduces the risk that they will find opportunities where their particular knowledge claims can be justified and in doing so, their innovations will become competitive.[401]

3.6 Limitations

Within managerial justification theory, the specific conceptualisation of justification and the underlying notion of discourse aimed at introducing shifts in justification criteria imposes certain limits on its ability to establish criteria deciding the validity of organisational knowledge. Firstly, managerial justification theory does not address the role of the external environment to resist organisational knowledge. As a consequence, there is no direct focus on the issue of how perturbations in the environment could be interpreted by the organisation in relation to justification processes and criteria. Secondly, and related to the autopoietic epistemology, managerial justification theory is perceived as subject to an unreasonable assumption on the level of operational closure, and in this sense does not take into consideration the impact of extra-organisational knowledge development on justification criteria. In the third instance, as a consequence of von Krogh's emphasis on consensus and understanding, managerial justification theory neglects the issue of politics, power and interest in shaping justification criteria. Finally this limitation also exposes managerial justification theory to criticism in terms of its ability to truly reflect justification processes that align with the creation of novelty.

3.6.1 Extra-organisational influences

While autopoietic systems are fundamentally self-determining, they are not self-contained. In other words, while perturbations from the environment do not determine the behaviour of an autopoietic system, the system is open to these disturbances. An important consequence of this, for the survival of autopoietic systems, is that failure to observe perturbations threatens the

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[401] von Krogh, G. 2009: 136

existence of the system.[402] As the validity of knowledge is internally determined by the acceptance of knowledge in relation to prior knowledge, this raises the question of how perturbations in the environment impact the organisation in the instance of false knowledge. Interpreting the relationship between the validity of knowledge and an external world in the context an autopoietic system, Mingers indicates that "*false knowledge leads to the destruction of the autopoietic process.*"[403] Validation in this sense implies "*the maintenance of successful autopoiesis.*"[404] In similar vein, Knorr Cetina's interpretation of the environment in relation to an autopoietic system provides a further starting point for the argument that managerial justification overlooks the role of the environment in modifying the internal reconstructions of knowledge in autopoietic systems. In this regard she writes of Luhmann's notion of autopoiesis that "*internal reconstructions can and should be changed in response to irritations and resistances provided by the external world when we try to impose our construction upon it. This model of the world as a 'resistor' . . . makes an impact on our accounts through stimulating modification in response to the resistance it offers.*"[405]

In positioning justification von Krogh himself alludes to the validity that knowledge needs to attain in relation to the environment when he raises the question, "*how does knowledge become relevant for a broader range of people . . . or even an industry, customers and external partners?*"[406] Considering that the justification of knowledge, at managerial level, concerns the acceptance of a knowledge claim as locally true, and therefore, as indicated by von Krogh, results in the allocation of resources to support the development of this knowledge as a new product or service,[407] this locally accepted validity of knowledge is tested in the external environment, as the final justification of the validity of locally created knowledge is determined in the broader society.[408] Practically, this implies that organisations may accept a given knowledge claim as justified, which results in the production of a particular product. In sensemaking terms the failure of a product to be accepted in the market implies a shock which requires specific attention. This shock can be conceived of as a violation of the justified

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[402] Blackman, D.A. and Hendersen, S. 2004: 188 and Seidl, D. 2004: 159

[403] Mingers, J. 1995: 90

[404] Mingers, J. 1995: 90

[405] Knorr Cetina, K. 1993: 84

[406] von Krogh, G. and Grand, S. 2000: 16

[407] Compare von Krogh, G. and Grand, S. 2000: 15

[408] See Nonaka, I and Takeuchi, H. 1995: 86 & 94

organisational beliefs. Moreover, from this perspective, shocks would result in dissatisfaction and in purposeful action to resolve this. It triggers sensemaking and cognitive change.[409] As an autopoietic system the organisation would experience this external failure as a perturbation which either leads to destruction or compensation.[410] The question that remains largely unanswered in managerial justification theory is how organisations, assuming that false knowledge does not destroy them, compensate for such perturbations in the organisation of their systems of justification.

3.6.2   Organisational boundaries and the problem of justification

One of the more problematic aspects of an autopoietic epistemology is the requirement that a clear boundary is established around the organisation.[411] As a fundamental assumption, the boundary determines the distinction between the organisation and its environment, and allows it to act as an autopoietic system that is operationally closed.[412] Viewed critically, several authors question the possibility that an organisation as a social phenomenon can display such final closure between itself and its environment, specifically as organisational members have to be considered holistically as belonging to multiple systems. Biggerio[413] for example argues that multiple membership implies a cross-boundary characteristic, and as a result the level of closure required between an organisation and its environment is not possible if individuals are the elements of an autopoietic system. Giroux and Taylor[414] expand on this argument specifically in the context of justification. Here, the autopoietic view of justification as a process inside a firm, takes place as the reproduction of internal structure,[415] contrasting with the notion of multiple membership implying multiple justification processes and criteria. As a result the ability for justification, as an instance of tacit knowledge, spans organisational boundaries and creates conflicting criteria within the same organisation.[416]

Giroux and Taylor investigate the extent to which justification criteria develop extra-organisationally to provide a critique against the notion of impermeable organisational

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[409] Weick, K. E. 1995: 84 - 100

[410] Mingers, J. 1995: 15 & 33

[411] Mingers, J. 2004:417 to 418

[412] Compare von Krogh. G., Roos, J. and Slocum, K. 1994: 60

[413] Biggerio, L. 2001: 09

[414] Giroux, H. and Taylor, J.R. 2002

[415] Compare Mingers who explains how autopoietic systems reproduce their own components (Mingers, J. 2004: 404)

[416] Giroux, H. and Taylor, J.R. 2002: 501

boundaries. In applying their observations, it appears that there are grounds to question the idea that justification criteria only develop self-referentially: that is either as a result of what is contained in the dominant logic, or what is related through the principles of discourse to dominant logic. Instead of perceiving the organisation as existing within a boundary, they propose that organisations exist as multiple micro-communities that reference not only themselves, but also the relationships they have across organisational boundaries. In this sense justification criteria develop in a trans-organisational fashion, incorporating elements from both the industry and the generic elements of micro-communities spanning organisational boundaries. The evolution of discourse and interest therefore transcends organisational boundaries, and justification criteria can originate in discourses that are intra-organisational or extra-organisational. At this level, i.e. outside of the direct scope of dominant logic, discourse is positioned in the realm of interests, and in the proposal presented by Giroux and Taylor, developing justification criteria follows a process of translation aimed at illustrating how new knowledge serves a particular shared interest.[417]

3.6.3   Power and politics[418] in justification

A surprising conclusion drawn by von Krogh, given his reliance on Foucauldian[419] analysis, is that the role of dominant logic in organisations *reduces* the likelihood that organisational decisions are influenced by "*corporate power plays or self-interested individuals*".[420] As indicated earlier, he draws this conclusion from the observation that dominant logic presents itself tacitly and as such is seldom consciously reflected on. This conclusion however results in managerial justification omitting to address the possibility that dominant logic is influenced by the political interests of a dominant coalition. While the potential for politics and interests are acknowledged in the notion that managerial activities may constitute manipulation, von Krogh does not elaborate on the extent to which political interests affect efforts to achieve justification of knowledge. Following Marshall and Rollinson,[421] the argument can be made that such a view on organisational knowledge construction fails to take into consideration that

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[417] Giroux, H. and Taylor, J.R. 2002

[418] The notions of power and politics is raised here in an organisational context and largely relates to Morgan's description of the interplay between different organisational members interests, the inherently political nature of this and the resolution of conflicting interests through power (Morgan, G. 2006: 158-166).

[419] Juniper takes specific issue with von Krogh's interpretation of Foucault and conclude that he presents a largely denatured view of Foucault's intention with the principles of discourse stemming from a neglect of the political aspects of Foucault's work (see Juniper, J. 2002)

[420] von Krogh, G. and Grand, S. 2000: 20

[421] Marshall, N. and Rollinson, J. 2004: S74

the social construction of knowledge is not merely a function of achieving mutual understanding, but often characterised by wilful disagreement in the face of understanding.

In terms of the influence of justification as politically motivated, Giroux and Taylor[422] offer an interesting alternative interpretation of how dominant logic could be inflected, which simultaneously illustrates how political interests become shared in the process of justification. Employing the notion of *intéressement*, Giroux and Taylor argue that knowledge in organisations is justified when a sufficient coalition of organisational members share the view that a specific claim to knowledge serves their interests. Knowledge in this view translates into organisational action once the point has been achieved where an idea has garnered sufficient support from different organisational communities who believe that a specific idea is aligned with their own interest.[423] Akrich, Callon and Latour[424] describe how, in this process of creating coalitions of shared interest, alienation of those excluded from an interest group is a by-product. Creating interest groups to facilitate adequate support for knowledge to be justified necessarily requires the organisation of supportive views and a process of aligning goals across multiple groups. Intentionally or unintentionally, the creation of such groups, supporting the justification of a knowledge claim, creates an opposing group of those whose interests are not included. Power and politics enter this fray when those outside of an interest group experience the adoption of knowledge as a direct attack on them.[425]

Aside from presenting an argument for illustrating how justification can be viewed as political, the preceding discussion of *intéressement* also brings to mind the concept of a dominant coalition and the extent to which its original intention was precisely to draw attention to the political nature of management and organisations.[426] This view, as reflected in Giroux and Taylor's argument that the construction of an organisational identity is in itself a social construction of knowledge,[427] provides an important insight into the mechanisms at play in establishing dominant logic in the first instance. From the point of view of *intéressement*, dominant logic is an expression of the shared interests of a group, in this case, management;

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[422] Giroux, H. and Taylor, J.R. 2002

[423] Giroux, H. and Taylor, J.R. 2002: 503

[424] Alkrich, M., Callon, M. and Latour, B. 2002: 204 - 205

[425] Giroux, H. and Taylor, J.R. 2002: 503 and Alkrich, M., Callon, M. and Latour, B. 2002: 204 - 205

[426] Thomas, A. B. 2003: 57 - 58

[427] Giroux, H. and Taylor, J.R. 2002: 512

while from the perspective of a dominant coalition these shared interests are arrived at through a process of political bargaining.[428]

A further issue with regards to the role of organisational politics, is raised by Tsoukas and Mylonopoulos,[429] when they underscore the role of power relations in shaping the criteria against which the validity of competing knowledge claims are evaluated. Here Marshall and Rollins'[430] interpretation of knowledge and power appear relevant to managerial justification theory, particularly considering the principles of discourse in relation to dominant logic. While von Krogh does not elaborate on the underlying dynamics of power that drive the perceived gradual shift in dominant logic, an understanding of how various coalitions compete for power and the acceptance of justification criteria arguably enriches the notion of knowledge as constructed through managerial discourse.

In researching the relationship between knowledge and power, Marshall and Rollins[431] argue that the political nature of deciding organisational knowledge claims is particularly evident at points where sensemaking[432] breaks down. Here they conceptualise disruptions as constituting not only an opportunity for sensemaking, but also an opportunity for power relations to become more explicit in influencing meaning. This notion draws on the idea that attempts to influence meaning are most noticeable when prevailing interpretations are questioned. The process of arriving at consensus under such circumstances is conceived of as an inherently political process of negotiating.[433] Power under these circumstances is envisaged in Foucauldian terms as "*exercised through a wide range of micro-strategies, dispositions and manoeuvres.*"[434] In exercising power through language and negotiation, attempts are made to influence the criteria for the evaluation of knowledge claims in order to bring closure. These attempts focus on the justifiability of knowledge claims to attempt to influence the outcome of closure in a specific

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[428] Thomas, A.B. 2003: 58

[429] Tsoukas, H. and Mylonopoulos, N. 2004: S4:"Power relationships at work impact on the representation practices actors use, and condition the forms of knowledge that become possible (Marshall and Rollinson, 2004; Yanow, 2004). Organizational politics shapes the validity criteria in terms of which competing knowledge claims are judged and has a decisive influence on the extent to which specialized bodies of knowledge across and organization are brought together to constitute *organizational* knowledge . . ."

[430] Marshall, N. and Rollins, J. 2004

[431] Marshall, N. and Rollins, J. 2004: S74

[432] Marshall and Rollins refer to Weick's concept of sensemaking here and particularly his notion of opportunities for sensemaking presenting itself in disruption

[433] Marshall, N. and Rollins, J. 2004: S77

[434] Marshall, N. and Rollins, J. 2004: S75

direction, i.e. the acceptance of a knowledge claim which serves the interests of a particular coalition. Through negotiation, the process becomes focussed on attempts to privilege one particular set of justification criteria over another. Underlying these attempts are micro-strategies through which power is exercised in an attempt to establish a version of knowledge as more acceptable. Power and knowledge in this sense are mutually constituted, as power both influences the acceptance of knowledge and itself is a construction that is maintained by knowledge.[435] Against this background an understanding of shifts in the justification criteria inherent to dominant logic becomes more than a matter of creating intersubjective understanding of relating new criteria to established logic. Instead, it acknowledges that in this process the local construction of knowledge is characterised by interests driven by more than consensual agreement.

3.6.4 Dominant logic and the development of novelty

In conceiving of dominant logic as self-referential, and organisational justification as ultimately shaped by this self-referential process, managerial justification theory is arguably subject to Stacey's criticism of autopoiesis as a formative teleology. In Stacey's reading of autopoiesis as an approach to organisational knowledge, autopoiesis is viewed as formative in so far as it relies on the notion that conversations unfold in the context of a predetermined organisational identity and rules.[436] This is for example evident in von Krogh's argument that dominant logic is *reinforced* through the everyday practices and activities of managers. While justification is considered a local process, it essentially follows a tacit understanding of how justification may take place, and how it could potentially be changed. However, in both instances what unfolds in discourse is rule bound, as an actualization and reproduction of dominant logic.[437] Arguing from the point of complexity theory, Stacey is critical of the possibility that any attempt at interpreting organisational communication in relation to enfolded tacit systems of meaning can result in a theory of organisational knowledge that provides an adequate explanation of the emergence of new knowledge. In this regard he argues that the outcome of the emphasis on regularity that results from such accounts is an overemphasis of shared understanding. Following this line of argument, autopoietic epistemology

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[435] Marshall, N. and Rollins, J. 2004: S80 – S81

[436] Stacey, R. D. 2001: 144-145

[437] von Krogh, G. and Grand, S. 2000: 15

underestimates the importance of conflict and disagreement in accounting for the emergence of novelty in conversations that unfold in unknowable ways.[438]

This criticism is fundamental when considering that managerial justification theory is at its very core an attempt to explain how organisations justify new knowledge. At the same time it provides a possible explanation for the extent to which von Krogh veers away from emphasizing the political nature of justification both in the context of the construction of dominant logic and in its subversion through the principles of discourse. Extending Stacey's argument on the emergence of novelty in conversations to justification as a process in managerial discourse, it appears that dominant logic as a resource, in the establishment of new justification criteria, would be insufficient to explain the possible outcomes of discourse. Here, Stacey for example argues that, while rules are used as resources in conversations, they are not a permanent feature of conversation. Instead, Stacey proposes that what happens in conversation is a collective effort at sensemaking in "*an unreflective, unforced, unplanned and unintended way*."[439] This notion contrasts with that of von Krogh, in as far as discourse at managerial level is seen as the intentional use of strategies to influence dominant logic. As conversations take place they are punctuated by misunderstandings, and these in turn trigger other themes in a conversation, lending to communication the capability to transform in unintended ways. It is out of this instability that novelty takes shape, representing an outcome that is unintentional.[440]

Justification criteria, as developed through a set of clearly defined strategies aimed at a continual process of relating back to dominant logic, would therefore, from a complex responsive process point of view, provide an understanding of justification that is too narrowly conceptualised to explain any major changes in the process of organisational justification. If the creation of new knowledge involves novelty, and novelty is understood as the characteristic of being unusual and different,[441] one could similarly argue that its justification would introduce the need for criteria and arguments that are in measure unusual and different. This limitation could be related to the manner in which von Krogh conceptualises knowledge that is subject to managerial justification. As discussed in section 3.4.1, managerial justification

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[438] Stacey, R. D. 2001: 144-145

[439] Stacey, R. D. 2001: 147

[440] Stacey, R. D. 2001: 147

[441] "novelty" 2016. http://www.merriam-webster.com

theory locates the origin of knowledge in tacit beliefs, and is specifically concerned with how tacit beliefs are justified to an audience that is removed from its production.

3.7 Conclusion

Rooted in constructivism and autopoiesis, managerial justification theory is formulated against the view that knowledge is situated and context-specific. As such, it is open to a multitude of influences that are locally determined. Moreover, taking an autopoietic view of knowledge implies that the traditional approach to knowledge, as a representation of reality, is no longer accepted as grounds for justification. Organisational knowledge in this context is considered valid under circumstances where it can be justified in relation to prevailing views on what constitutes knowledge under a particular set of circumstances. Equally, it is the local conditions that determine which criteria of justification will be appropriate and result in the successful adoption of a knowledge claim. In this process von Krogh pays specific attention to the role that management plays as the final arbiter in the acceptance of knowledge as valid. He conceives of this process as a discourse which is simultaneously maintained as a belief system of established knowledge, and a set of strategies that attempt to influence this discourse toward the acceptance of new knowledge. Considering the possibility that existing justification criteria act as a barrier to new knowledge creation, he places emphasis on the role of management in creating an environment that is conducive to the justification of new knowledge.

Chapter 4

A pluralistic approach to justification

4.1   Introduction

Tell's justification framework is a purposeful attempt at addressing the criticism that the definition of knowledge employed in practice-based approaches results in a conceptually vague notion where all organisational action is equated to knowledge. Departing from the point of view that knowledge is both pluralistic and grounded in practice, Tell proposes that a solution to this critique may be found in studying the grounds on which organisational members claim to know. With this proposal Tell attempts to move the discussion of organisational knowledge away from "what" knowledge is, to "how" knowledge is used as a concept in organisational discourse. In expanding on this argument, Tell proposes that, while universalistic epistemological theories are insufficient to depict the nature of organisational knowledge, and while practice determines how knowledge is legitimated, it is possible to find general patterns employed in justification practices that transcend organisational boundaries. As a secondary concern to Tell's proposal, he argues that the conceptual understanding of organisational justification needs to move beyond the tacit-explicit dichotomy to encompass a broader understanding of the nature of organisational knowledge creation.

In the discussion presented in this chapter, there is firstly a focus on the main tenets of Tell's approach to understanding organisational knowledge.[442] This is followed by a detailed discussion of his proposed typology of organisational justification contexts. Finally, the chapter

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[442] Unlike von Krogh, Tell's proposal is not embedded in a body of work aimed at establishing an alternative theory of organisational knowledge. Rather his theory of knowledge is intimately tied to his theory of justification: understanding of the nature of organisational knowledge is based on understanding the grounds for claiming to know. From a practical point of view this affects the structure of the discussion in this chapter, as Tell deals only very briefly with his theory of knowledge, but expands in detail on his framework for justification.

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reviews the most pertinent implications and limitations of his proposal in light of its contribution to a practice-based view of justification.

4.2   Conceptual context of Tell's justification framework

Although Tell does not ground his theory of justification on an elaborate theory of knowledge, three influences are discernible in his approach to knowledge. Firstly, following authors such as Spender, Blackler and Cook and Brown, he positions knowledge in the context of pluralism and action, arguing that organisations "*know in various forms*".[443] Secondly, he proposes that a possible solution to the criticism that pluralistic and practice-based views of knowledge result in an "anything-goes" view of knowledge, can be addressed by focussing on the basis for the justification of knowledge, rather than on the essence of knowledge.[444] In proposing this idea Tell draws on Wittgenstein's linguistic analysis of knowledge, and specifically on how the use of the word knowledge draws on grounds for claiming to know. Finally, and related to the former, Tell introduces the argument that while universal criteria are inadequate as an explanation for organisational knowledge, there are generally discernible patterns in justification that elucidate the patterns of justification in organisations beyond local practice.[445] The latter forms the basis for Tell's justification framework, and introduces one of the fundamental differences between Tell and von Krogh's approaches to justification which is worth elaborating on. In Chapter 3 it was argued that von Krogh's conceptualisation of knowledge looks toward theories outside of the traditional realm of epistemology to enable an understanding of knowledge in general and justification specifically. In contrast to von Krogh, Tell looks toward philosophy and epistemology to attempt to enrich an understanding of justification and from this derive a fourfold set of ideal types of justification contexts, which he then relates to different ways of knowing in organisations.

4.2.1   Knowledge as distributed practice

The departure point for Tell's proposal, that a focus on justification in organisational KM is of value, is his acknowledgement that knowledge is situated in practice. In this regard he argues that there is an interrelationship between what is known in an organisation and what organisations do. Knowledge in this sense becomes "*the practising of skills in a social*

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[443] Tell, F. 2004: 444

[444] Tell, F. 2004: 444: "Rather than focusing on the question of what the essence of organizational knowledge *is* (its form or essence), a focus on the justification allows for an analysis of the grounds organizations and their members make use of when they claim to know"

[445] Tell, F. 2004: 444 and 464

context."[446] These social contexts are situated not only in the realm of the organisation, but also in the participation of organisational members in networks that extend beyond organisational boundaries. Furthermore, as action is informed by different ways of knowing, organisational knowledge cannot be reduced to one form. Knowledge therefore needs to be understood through organisational practice and as a pluralist construct.[447] However, Tell acknowledges that the emphasis on the nature of knowledge as activity has resulted in criticism that knowledge in practice-based perspectives amounts to nothing more than equating all organisational behaviour to expressions of knowledge. Here, Tell proposes that a possible solution to this criticism is to focus on the rules that are at work when organisations or individuals claim to know. While acknowledging the proposals of Nonaka and von Krogh to this debate, Tell argues that these contributions lack in two central aspects. On the one hand he is critical of the dichotomous nature of explicit and tacit knowledge central to Nonaka's theorising and argues that "*a more subtle understanding*"[448] of organisational knowledge can be obtained by moving beyond this view. Secondly, with regards to managerial justification theory, Tell argues that if knowledge and learning is situated in action and practice, justification practices should be understood as they occur in the distributed activities of organisational members, and not only as managerial practices.[449]

4.2.2   Knowledge as a language game

Tell proposes that, following Wittgenstein, the analysis of knowledge in the context of organisational practice should focus on how knowledge, as a concept, is used in language. In this framework the meaning of knowledge is derived from the possibility of providing grounds for claiming to know in ordinary language.[450] For Tell this understanding has two implications for a theory of knowledge, both contrasting with the traditional analysis of knowledge as justified true belief. On the one hand, focussing on how knowledge is used in language does

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[446] Tell, F. 2004: 444

[447] Tell, F. 2004: 444: "Another interpretation can, however, be offered: organizations and their members may know in various forms (Blackler, 1995; Spender, 1998). In the practices of organizations, pluralism prevails, which is not captured by traditional universal (scientific) theories of knowledge. However, this may imply that anything goes; that one then can be completely eclectic and say that any kind of organizational behaviour is just and expression of another form of knowledge"

[448] Tell, F. 2004: 445

[449] Tell, F. 2004: 445: " . . . the literature on organizational knowledge and learning directs attention to organizational activities and practices and fundamental. This implies that it is not just top management practices that are important and should be investigated when studying the justification of knowledge"

[450] Tell, F. 2004: 446: "For Wittgenstein the very meaning of knowledge lies in how it is used in denoting our possibility of giving grounds for knowledge claims in ordinary language . . ."

not involve imposing absolute conditions of truth. It is in this sense that Tell's proposal is not an attempt to focus on the essence of knowledge.[451] On the other hand, Tell sees Wittgenstein's approach as a move away from knowledge as belief. This follows from the rejection of the idea that as a word "knowledge" reflects a "*description of a mental state*".[452] Instead, following Wittgenstein,[453] knowledge as a word represents a signal and in a social context the use of this word is judged as appropriate or not. This leads Tell to argue that knowledge is "*justification in a social context*"[454] and therefore resides in practice. The resulting understanding of the justification of knowledge is therefore not focussed on how knowledge describes cognition or corresponds to an external reality, but rather how knowledge is used in organisations to express *different grounds* for claims to knowledge.

Although Tell does not position his theory as such, his view on knowledge as described above exhibits similarities with social constructionist and post-modernist theories of legitimation that draw on the recognition of validity in practice.[455] With regards to the former, Alvesson for example argues that the socially constructed nature of knowledge determines that knowledge is dependent on social recognition. Validation in this context can only occur in relation to others, and in practice, by being recognised as valid in a particular set of circumstances and for a particular audience.[456] From a post-modernist perspective the notion of language games is central to the rejection of the idea of meta-narratives, i.e. unitary, all-encompassing theories that attempt to find a conclusive account of how knowledge is legitimated. Instead following Lyotard,[457] there is no single unifying account that provides final legitimacy to knowledge outside of the practical function it serves for those who employ it. Rather, reality is characterised by micro-narratives or language games, each determining their own legitimacy in communicative practice.

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[451] See section 4.2.4 for a more detailed elaboration on this point

[452] Tell, F. 2004: 447

[453] Wittgenstein, L. 1953: 73 quoted in Tell, F. 2004: 447

[454] Tell, F. 2004: 447

[455] Note that Tell himself does not reference either of these approaches

[456] Alvesson, M. 2001:872: "As a socially constructed phenomenon, knowledge does not exist on its own, but is dependent on social recognition; without being perceived and recognized by others, for all practical matters, knowledge does not appear as such . . . A company that claims to be in the knowledge business – and to offer services or products with a sophisticated knowledge content – calls for the specific or institutionalized confirmation and support of significant others"

[457] Lyotard, J. 2004.

In the context of Tell's pluralism, an important aspect of the language game perspective is to understand its relationship to positivism and rationalism in the creation and legitimisation of knowledge. Here, positivism and rationalism (objectivism) are recast as language games themselves, i.e. systems of meaning that have been socially constructed and which determine the justification criteria that serve as the grounds for knowing when playing this particular game of objective knowledge.[458] While this brief discussion superficially indicates similarities in the use of the language game concept to conceptualise knowledge and justification, it is important to note that Tell's proposal is not based on a similarly strong notion of practice characteristic of constructivism.[459] Of specific concern here is the level at which Tell generalises in the instance of justification criteria. Although Tell's conceptualisation of knowledge draws on a generally similar image of knowledge as used in language games, it is by his own admission intended to be weaker in its emphasis on the localised nature of justification context.[460] In this sense Tell's proposal for knowledge in relation to justification criteria can be seen as an attempt to establish the basis for multiple meta-contexts describing the general rules to which knowledge in a particular language game will tend to conform.

4.2.3   Pluralist epistemology[461]

As an epistemological approach, pluralism has its roots in the critique of the adequacy of a single method/theory in the philosophy of science in explaining certain natural phenomena, proposing instead that any understanding of the world is both characterised by and requires multiple approaches.[462] Pluralism therefore contrasts with monism, where the latter is based on five central tenets:[463]

a) That the objective of science is to derive a fundamental set of principles that provides a unified and single account of the world

b) That reality is of such a nature that a) can be achieved

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[458] Lyotard, J. 2004: 360 – 361 and Mauws M.K. and Phillips, N. 1995: 325 - 326

[459] This argument draws on the discussion in Knorr Cetina, K. 1993: 81-85 of variants of constructionism/vism

[460] Tell, F. 2004: 464: " . . . this article suggests that a weaker understanding of organizational knowledge is required, since the rules for knowledge justification are generic rather than confined to the boundaries of the organization."

[461] It should be noted here that Tell himself does not provide a detailed discussion of a pluralist epistemology and the discussion here draws on Blackler and Spender who he references in relation to his position as a pluralist

[462] Kellert, S.H. Longino, H.E. Waters, C.K. 2006: vii and Davies, E.B. 2006

[463] Kellert, S.H. Longino, H.E. Waters, C.K. 2006: x. Note here that the authors provide an explanation of monism specifically in the context of scientific knowledge, the description here draws on a more general notion of monism in relation to knowledge

c) That a single methodology exists through which a) can be achieved

d) That methodologies must be judged by their ability to achieve a)

e) That the evaluation of knowledge claims are to be judged on their ability to provide a)

Pluralism's argument against monism starts with a rejection of proposition b), i.e. the idea that the world can be adequately described through a single theory. Instead, the pluralist argument is that this proposition cannot be known as a metaphysical truth and instead it is a hypothesis that should be subject to empirical enquiry.[464] This argument undermines all other remaining propositions, as a rejection of b) implies that if reality cannot be adequately described through a unified and universal theory, it is not reasonable to assume the ultimate goal of science is to achieve such a description. As propositions c) to e) rely on the truth of proposition a) it follows that it is unreasonable to believe that a single methodology that will result in a universal and unified theory of the world can exist; similarly, the adequacy of methodologies can therefore not be judged on their ability to achieve a); and finally knowledge claims cannot be evaluated on their ability to provide a).[465]

In relating pluralism to an epistemology of organisational knowledge, Spender[466] particularly juxtaposes it with positivism as the dominant monist epistemology evident in theorising about organisational knowledge. In this context, he focusses particularly on the problematic notion of knowledge as existing in essentially one form, as objective knowledge of an external reality. This view reduces the complexity of organisational knowledge through its assumptions that a) knowers are objective observers detached from context, their different ways of knowing and their emotions, and b) reality is an unproblematic world existing in its totality independently of knowers.[467]

For Spender, the monist notion of knowledge is based on the failure of positivism to realise that its scientific method implies two types of knowing existing in respectively in "*'pre-scientific'. . . knowledge, typically based on the experience of observation, and a 'scientific' or abstract, law-like mode of knowing*".[468] This rejection, of a monist conceptualisation of knowledge, is paralleled in Blacker's argument for the maintenance of complexity in

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[464] Kellert, S.H. Longino, H.E. Waters, C.K. 2006: x

[465] Kellert, S.H. Longino, H.E. Waters, C.K. 2006: x-xi

[466] Spender, J.C. 1998

[467] Spender, J.C. 1998: 237

[468] Spender, J.C. 1998: 236

knowledge.[469] Here he puts forward the proposal that organisational knowledge requires rethinking both the locus and nature of knowledge. In this regard, he proposes that from an organisational point of view, there is value in locating knowledge in processes, and therefore focussing on knowing as an activity rather than knowledge as an end-product. Secondly, rather than focussing on segregating different ways of knowing, the conceptualisation of knowing needs to draw on the multi-dimensional nature of the concept. For Tell these arguments form the basis of an approach that affords primacy to the proposition that knowledge, as organisational practice, is characterised by pluralism.[470]

Acknowledging that organisational knowledge is pluralistic does, however, not only depend on the recognition of multiple forms of knowledge. In particular, Spender observes that the recognition that knowledge exists in more than one form results in awareness that knowledge creation occurs in interaction between different forms of human knowing.[471] A pluralist epistemology of organisational knowledge therefore concerns itself with a two-fold problem. On the one hand it must distinguish between different types of knowledge, and on the other concern itself with drawing out the consequences of the interrelationships between different types of knowledge into a knowledge system.[472] This approach is evident in Blackler's argument that understanding the relationships between knowledge types in a multi-faceted concept of knowing "*is at least as important as the delineation of . . . differences* [in knowledge types]."[473]

4.2.4   Theory of Truth

An important point raised by Tell, in his pluralist approach to justification, is the absence of any specific theory of truth. In Tell's general approach this relates back to his objective to deliberately not investigate the inherent properties of knowledge, but rather focus on the context in which justification occurs.[474] This proposition follows from the arguments of Brown and Duguid, that the complex and paradoxical nature of knowledge lends itself to a more detailed understanding when approached from a social and cultural account of knowledge,

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[469] Blackler, F. 1995: 1035

[470] Tell, F. 2004: 444

[471] Spender, J.C. 1998: 236

[472] Spender, J.C. 1998: 237

[473] Blackler, F. 1995: 1033

[474] Tell, F. 2004: 445: "Hence this article follows the advice of Brown and Duguid (2001: 200): rather than addressing knowledge in terms of the inherent properties of knowledge itself, it investigates and organizational environment in which knowledge is created and diffused."

rather than a focus on the properties of knowledge.[475] Here Tell argues that focussing on truth concerns the "*essence of knowledge,*"[476] as it essentially attempts to determine the conditions under which any description of knowledge can be said to be accurate. As his pluralist approach is not concerned with a fundamental description of knowledge, his approach to truth concerns itself with the criteria for truth in whichever form it may take, rather than truth itself. Tell refers to this position as a "*justification project,*"[477] which by its nature does not concern the necessary and sufficient conditions for truth, nor attempt to offer any type of analyses of truth.[478]

4.3   Tell's Justification Framework

Drawing on philosophy, Tell proposes that justification can be conceived of as existing in two dimensions, relating to respectively the structure[479] of justification as internal or external to the knower, and to the process of justification drawing on either rationality or action (see figure 4.1). The intersection of the two dimensions results in a justification context, which in turn determines the general rules of the language game that would apply to knowledge used in a particular context. As per the discussion below, Tell locates the theoretical origins of the poles of each dimension in philosophy, and expands on the application to organisational justification.

Figure 4.1 Tell's justification dimensions and contexts

Source: Tell, F. 2004: 451

	Internal justification	External justification
Justification by performance	Personal knowledge	Institutional knowledge
Justification by procedure	Subjective knowledge	Objective knowledge

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[475] Brown, J.S. and Duguid, P. 2001: 200

[476] Tell, F. 2004: 446: "In many definitions of knowledge, absolute conditions of truth are considered necessary for an accurate account of knowledge. Focussing on truth, one could say, is aiming for the very 'essence' of knowledge."

[477] Tell, F, 2004: 446

[478] Kirkham, R. L. 1992: 26

[479] This observation draws on the work of Fumerton, R. 2010.

4.3.1   External justification: foundations for knowledge

Tell conceptualises the structure of external justification through foundationalism, and specifically its concern with non-inferential and independent beliefs.[480] Through this, he proposes the external property of justification as a structure that is characterised by realism and reference to an objective reality as the source of warrant. For Tell, external justification expresses the need to justify knowledge as "objective" based on an understanding of the world as existing independently of human experience and cognition.[481] In this approach to justification, what is at stake is that the justification process establishes a relationship between the knower and the environment which allows for an objective assessment that is non-inferentially true. Moreover, in Tell's distinction, such an external justification requires that the justification of a knowledge claim is independent of the knower.[482]

By drawing on foundationalism, Tell introduces into this distinction the idea that it is possible for knowledge to be justified in relation to certain infallible truths. Here he specifically refers to the nature of external justification as non-inferential.[483] Non-inferentiality can be viewed as the distinguishing characteristic of foundationalism,[484] with non-inferential justification representing a solution to the problem of infinite regress.[485,486] The foundationalist proposal here is that all beliefs are justified by means of foundations. These foundations of justification in essence represent the termination point of all other beliefs,[487] therefore signifying a finite point in the regress argument to which all inferential beliefs can be related, but which in themselves do not refer to any further basic beliefs.[488] The latter notion brings to mind the idea

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[480] Tell, F, 2004: 447 - 448

[481] Tell, F. 2004: 447: "The thought of objective reasons for our justification reveals the importance of our understanding of the reality 'out there' to be investigated by us. In order to find proper justification for our beliefs, we have to exit our subjective ideas and refer to reliable causes in a general reality."

[482] Tell, F. 2004: 448

[483] Tell, F. 2004: 448

[484] Fumerton, R. 2010

[485] Crumley, J.S. 2009: 112 – 113.

[486] In epistemology the infinite regress problem in relation to justification can be understood as an infinite cycle of beliefs in the structure of justification that results from inference. The basic argument here is that of regress, which proposes that a belief is justified only if some form of evidence exists in support of the belief (Crumley, J.S. 2009: 110-111). The foundationalist position argues that, if it is accepted that justification is inferential as per the regress argument, i.e. the justification of a belief draws on other beliefs, and if all beliefs are based on inferential justification there would be no basis for claiming justification of any belief, since all beliefs would only be inferentially true (Fumerton, R. 1995: 56-57).

[487] Crumley, J.S. 2009: 113 and Bonjour, L. 1976: 282

[488] Lycan, W.G. 2002: 430

of "ultimate data"[489] or "facts" that exist as the basis of justification for all knowledge that relates to them. In the Cartesian tradition, where knowledge is essentially cognitive, these foundations are uncovered through rational and logical thought processes that disclose the first principles of belief on which the justification for further belief builds.[490]

However, Tell indicates that non-inferentiality alone is not sufficient as a foundation for external knowledge, but also requires that the justification of knowledge must be independent of the knower.[491] This requirement in foundationalism is expanded on by Maher[492], who argues that the problem of final foundations to knowledge is not merely solved through beliefs that are not inferred from further beliefs, but also requires that a foundational belief is not dependent on any other knowledge. In this sense, a foundational belief must be independent of the knowing subject. This idea in foundationalism is referred to as the notion of "the given,"[493] representing the idea that independent knowledge exists which is *intrinsically credible*."[494] This notion of "given" knowledge is arguably most clearly illustrated in the externalist foundationalist theory proposed through reliabilism. Reliabilism avoids the problem of infinite regress by arguing that justified belief is formed through external input other than beliefs, which is processed through human cognition to result in truth.[495] Fumerton explains that in this view, human cognition is akin to an input-output model, where given stimuli in the environment result in immediate and unreflective conclusions which, through human evolution, have reached the point where they are normally true. This view of innate knowledge furthermore implies that humans by nature have access to a vast array "*of foundational knowledge upon which we can draw in arriving at inferentially justified conclusions*."[496]

For Tell, the value of understanding justification from this point of view lies in the extent to which organisations and organisational theory interpret their environments as "given" in a way similar to that found in foundationalism. In terms of the former, he specifically refers to the

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[489] Lycan, W.G. 2002:430

[490] Ollson, E. 2014

[491] Tell, F. 2004: 447: "These non-inferential foundations referred to when justifying a knowledge claim are thus *independent* of the knowing subject."

[492] Maher, C. 2012: 9 - 11

[493] Tell, F. 2004: 448 "Such an account of justifications must therefore include a premise that some things are 'given' . . ."

[494] Maher, C. 2012: 10

[495] Fumerton, R. 2010

[496] Fumerton, R. 2010

assumptions organisations hold with regard to their environment, as elaborated on by Daft and Weick.[497] The latter authors propose that organisations essentially interpret their environment as either concrete or constructed.[498] Where organisations hold the view that the environment is concrete and predetermined, their interaction with the environment takes on the characteristics of attempting to find an existing answer. Engagements are aimed at uncovering hard facts through the application of rational, linear and analytical processes. [499] In this case, as in foundationalism, the underlying assumption is that the knowledge organisations seek exists in the environment and merely requires being discovered as a basic indisputable fact.

From the perspective of organisational theory, Tell argues that similar views are espoused in the neoclassical theory of the firm, as well as the contingency theory of organisations.[500] In both instances the rationality of organisations is underscored, either as the response to conditions determined by the environment, or alternatively in the optimal design of the organisational system in relation to a given set of environmental conditions.[501] These approaches to underscoring the rational and logical nature of behaviour parallel the beliefs in foundationalism that it is possible to derive the first principles of knowledge, i.e. the basis of justification, through processes of logical thought.[502]

4.3.2   Internal Justification: coherence with belief systems

Tell proposes internal justification as the antithetical position to external justification, and draws on the work of Bonjour and Lehrer to provide the basic characteristics of this concept. As a theory of justification, internalism represents an outright rejection of foundationalism, proposing instead that justification does not result from that which is external to the knower, but rather from the internal coherence of a knowledge claim with other beliefs already adopted.[503] Here Tell underscores the position held by coherentist theories of justification, that

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[497] Tell, F. 2004: 448: "Daft and Weick (1984) discuss a kindred view of organizations as interpreting their environment as analysable and 'given', which can be approached passively or actively."

[498] Daft, R. and Weick, K.E. 1984: 287

[499] Daft, R. and Weick, K. E. 1984: 287

[500] Tell, F. 2004: 448

[501] Tell, F. 2004: 448: "One example of this perspective is the neoclassical theory of the firm, as depicted by its critics (Nelson and Winter, 1982; Nelson, 1991; Penrose, 1995), responding to conditions given by technologies and markets by using economic rationality. Another example is the contingency theory of organizations (Thompson, 1967; Lawrence and Lorsch, 1969), where organizations are seen as rational systems contingent upon their interactions with external environments (Scott, 1998)." See also Morgan, G. 2006: 46 - 48

[502] Compare Ollson, E. 2014

[503] Tell, F. 2004: 448

the basis for justification can only stem from the "*system of beliefs*" held by a knower. This system of beliefs includes both assumptions on the nature of knowledge and reality, and any justification of knowledge referring to this system will ultimately have to cohere with beliefs already held.[504]

A fundamental consequence of the former position is that, whereas the foundationalist perspective emphasises the need for uncovering basic beliefs, coherentism views all beliefs as equal.[505] Given this position, the argument is presented that the justification of knowledge claims is found in the network of mutual support that beliefs provide for each other.[506] Bonjour illustrates this argument, while specifically positioning coherence theory in the context of regress and the self-referential nature of justification, by explaining that "*the primary unit of epistemic justification is such a [closed] system, which is justified in terms of its internal coherence.*"[507] Underlying the former argument is a rejection of the idea that inferential justification is linear in nature.[508] Here, coherentism takes specific issue with the idea that justification is a process where belief A is justified by belief B and so on, until the basic belief is reached. Instead, Bonjour argues that, while justification of a single belief may appear to take on the nature of linear justification, by virtue of achieving dialectical acceptance of a premise belief, the core issue of justification at stake, in coherence theory, is the global justification of the belief system itself. Justification of a belief, in this proposal, involves the coherence of the system and not specific beliefs from which a particular knowledge claim draws its warrant.[509]

Lehrer[510] offers a further line of criticism against the notion of regress in foundationalism, underscoring, amongst others, the pragmatic nature of justification and the non-inferential nature of justification in coherence theory. Here, he maintains that the justification of a belief takes place in relation to a questioner, i.e. someone other than the knower. Justification is, in

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[504] Tell, F. 2004: 448: "The knowing subject is seen as having a system of beliefs, including ontological and epistemological assumptions. Justification can be given only with regard to this system; reasons cannot be found outside it."

[505] Ollson, E. 2014

[506] Ollson, E. 2014 and Crumley, J.S. 2009: 112

[507] Bonjour, L. 1976: 283. Note that this view refers to Bonjour's summary of the traditional approach of a coherence theory of empirical knowledge and not his own view on how regress should be addressed in coherentism

[508] Bonjour, L. 1976: 286

[509] Bonjour, L. 1976: 287

[510] Lehrer, K. 2015: 30-31 & 88-90

this regard, aimed at providing sufficient warrant for a belief only to the point where an agreed premise is reached. The former is the basis for avoiding infinite arguments, as arguments only proceed until the point where agreement is reached. In this sense a belief, rather than an appeal to evidence, can provide the necessary justification for a disputed belief.

Drawing on Lehrer, Tell positions the implications of coherence as the idea that any belief can be justified, provided that is can be explained "*in accordance with the system of beliefs*"[511] of the knower. Lehrer elaborates on the implications of this view of justification, by putting forward the argument that, in this understanding, justification is a matter of subjectivity, as ultimately justification rests on the *knower's acceptance* of something as justified belief.[512] This implication further distances Tell's[513] notion of internalism from externalism, as unlike foundationalism, coherentism does not espouse the idea that knowledge can be justified through any objective means.[514]

From an organisational point of view, Tell argues that this internalist notion corresponds to the self-referential conceptualisation of organisations, evident in the work of authors such as Tsoukas, von Krogh and Weick.[515] Given the discussion on von Krogh's view of autopoietic epistemology in Chapter 3, these parallels are self-evident, including the notion that knowledge is always personal as an interpretation relating to the knower. Furthermore, at an organisational level, the environment is always interpreted in a self-referential manner. The influence on justification, by an established dominant logic acting as a scheme of beliefs requiring new claims to cohere to be accepted as "true", offers a kindred view of coherentism's reference to a belief system, and the dependence of justification on both the system and other beliefs. For Tell,[516] internal justification furthermore relates to a constructionist ontology[517] as evident in Weick's notion of enactment. Here, Tell argues that the understanding of organisations as

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[511] Tell, F. 2004: 448

[512] Lehrer, K. 2015: 32

[513] Tell, F. 2004: 448: "Moreover, the coherence thesis argues that pure externalism fails to explain how such independent foundations can serve to justify beliefs that, by their nature, must be internal to the knowing subject. . . . An internal justification for a knowledge claim is thus, in contrast to the external one, dependent, upon other beliefs held by the knowledge claimant."

[514] Lehrer, K. 2015: 32

[515] Tell, F. 2004: 448 - 449

[516] Tell, F. 2004: 449

[517] The classification of Weick's sensemaking approach as embracing a constructionist ontology draws on the observations of Guiette, A. and Vandenbempt, K. 2014 : 159

making sense of an environment which they actively create[518] "*supports the notion of knowledge justification as a process in which a coherent 'fit' with internally upheld assumptions is the outcome.*"[519]

4.3.3 Procedural justification: rationality and reason

As a process, Tell's notion of justification by procedure draws on the dominant notions of rationality and positivism in epistemology. Here, the process of justification is presented in the context of the scientific methodology, espousing the principles of deduction, reason, logic and testing. Of primary importance is the procedure involved in justification, drawing on the ability to illustrate the logical deduction of a premise, and the capacity of premises to stand up to empirical facts. Following from this, the ability to illustrate adherence to procedure acts as the justifier of the knowledge claim, and confers on this claim a certain status associated with universality, as the claim can both be reproduced (by following the same procedure) and evaluated. [520] In order to create knowledge beyond what is immediately observable, rationality in justification is guided by inference, resulting in the creation of knowledge that is abstract.[521]

Following Tell, the positioning of justification by procedure in the realm of the rational and scientific implies a number of assumptions that would characterise the process of knowledge creation. Primary among these is the idea of objective activity by human actors engaging in the process of knowledge discovery in a disinterested fashion while applying the scientific method.[522] Knowledge creation, in this sense, is an activity focussed on uncovering truth as the goal of science, and by virtue of adherence to the scientific method, not an activity reflecting individual or group interests beyond truth.[523] Related to the former, decisions in relation to knowledge claims are taken only on force of better evidence. In this regard, Newton-Smith explains that the shift of allegiance from accepting one knowledge claim over another, is purely

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[518] See Weick, K.E. 1995: 30: "I use the word *enactment* to preserve the fact that, in organizational life, people often produce part of the environment they face . . ."

[519] Tell, F. 2004: 449

[520] Tell, F. 2004: 449: "The hypothetical-deductive method stands as an archetype for the rational pursuit of knowledge (Losee, 1993). A central concept of this justification process is the procedure in which the argument is presented – how data and warrants are used (Toulmin, 1958). Showing the logic of how hypotheses have been deduced, and the way these hypotheses have been confronted with empirical facts, provides the argument and justification for the knowledge claim. . . . Following the procedure, certifies the knowledge claim, making it universally understood, reproducible and possible to evaluate. Inference guides the procedure of rational justification, and an outcome of this process is theories, models and other abstractions."

[521] Tell, F. 2004: 449 also see Andersen, H. and Hepburn, B. 2015.

[522] Newton-Smith, W.H. 2003: 01 & 99

[523] Newton-Smith, W.H. 2003: Chapter 1 also see Knorr Cetina, K. 1988.

dependent on internal factors relating to the claims themselves, the relationship between these claims and the evidence available to evaluate claims.[524] As is the case with the view of the objectivity of knowers, the former again reiterates the irrelevance of context and human interest in the procedural justification of knowledge. Consequently, the scientific method affords a role for social factors only in instances where there is deviance from rational normativity.[525]

In the field of organisational theory, Tell likens the process of justification by procedure to the logic of consequences espoused in the rational procedure of organisational decision-making as presented by March.[526] In this regard, March argues that rationality in organisations refers to a set of procedures which inform organisational choice and "*pursue a logic of consequences,*"[527] which are aimed at informing a decision through addressing the alternatives, expectations, preferences and decision rules when a choice is made. For Tell, this decision-making process parallels with that of the scientific method in its objective to uncover truth, as the economic agent attempts to optimise her decision-making by engaging in a rational process of choice.[528] Illustrating this position, March observes that processes of rational decision-making are characterised by "*decision makers and professionals try[ing] to find the right answer.*"[529,530] In his argument, that research in this field is mainly normative and focussed on prescribing the criteria to arrive at rational decisions, Brunsson[531] provides a further exposition of how decision-making theory mimics the scientific method. Furthermore, where rationality fails, it is amongst others attributed to poor cognitive skills or related to problems of information processing. Action in procedural justification is therefore positioned as a consequence of rational processes, which provide reasoned warrant for choices and behaviour.[532]

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[524] Newton-Smith, W.H. 2003: 4

[525] Newton-Smith, W.H. 2003: 6-7

[526] Tell, F. 2004: 450: "In organization studies, March and Olsen (1989) call this rationality the 'logic of consequence'. Like the scientist in search of truth, the economic agent, for instance, searches for different alternatives and evaluates their consequences when making a decision (March, 1994)."

[527] March, J.G. 1994: 16-17

[528] Tell, F. 2004: 450

[529] March, J.G. 1994: 29

[530] An interesting remark made by March (1994: 17-18) in the context of rational decision making, relates to the idea that people "rationalize" decisions. That is when faced with questions on why a decision was taken, people explain their behaviour in terms of reasons. This suggests the notion of "finding" reasons to justify the decision which brings to mind the notion of rationality as constructed retrospectively in the sense that Weick (1995: 26) intends through sensemaking

[531] Brunsson, N. 1982: 30 - 31

[532] Tell, F. 2004: 450: "Action founded on such premises may rightfully be conceived as rational action from a decision-making perspective (Brunsson, 1982). . . . The justification resides in the procedures and measures

4.3.4   Performance-based justification

On the obverse dimension of justification processes, Tell positions justification by performance, and specifically draws on epistemological approaches opposing the notions of rationality and procedural methodology as the basis for knowledge creation.[533] These approaches, as evident in the work of Polanyi and Feyerabend, draw on criticism of the likelihood that new knowledge can be produced following the rigorous procedures of a scientific method.[534] Instead, in Tell's interpretation, these authors propose that knowledge creation occurs precisely when the principles of rationality are violated. Based on this, Tell observes that, rather than inference, performance-based justification draws on the notion of influence and accounts for knowledge representing "*intuitions, aesthetics and conventions*."[535]

Feyerabend's criticism of the scientific method stems from his rejection of a "*common structure*"[536] that can be discerned in scientific results and events, and which is universally present in all scientific investigations. Instead, he contends that whichever methodological factors lead to success in one endeavour may well have disastrous consequences if replicated under a different set of circumstances. In all instances methods, therefore, cannot be understood independently of the context in which they are applied. Furthermore, success in science is precisely dependent on its failure to "*obey general standards*"[537] as it moves beyond that which already known and accepted.[538] Feyerabend's rejection of a universal scientific method draws on two arguments: on the one hand if it is accepted that "*the world . . . is a largely unknown entity*,"[539] expanding knowledge of this world cannot be dependent on limiting principles of knowledge creation. On the other hand, he rejects rational processes as a constricting condition on human life, which attempts to force all knowledge into conformation to a set of ideals. Instead of a unified universal scientific method, Feyerabend proposes methodological anarchy, an approach characterised by its violation of methodologically proper principles by, for

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taken to obtain the most rational decision possible. There is a reason for acting in accordance with the decision made, if the right methods for gathering and evaluating information have been used."

[533] Tell, F. 2004: 450

[534] Tell, F. 2004: 450: "Critical reasoning and justifying methods may not be conducive to the development of new ideas or new actions. Following in Herschel's footsteps, Polanyi (1946) and Feyerabend (1975), for instance, have pointed out the deficiencies of rigorous methodology for the production of new scientific knowledge."

[535] Tell, F. 2004:450

[536] Feyerabend, P. 1993:01

[537] Feyerabend, P. 1993: 01

[538] Feyerabend, P. 1993: 01

[539] Feyerabend, P. 1993: 12

example, employing "*ad hoc hypothesis and propaganda*."[540] For Feyerabend such an anarchical methodology is characteristic of the practice and history of science, and serves to elucidate how knowledge is discovered, before it is reduced in the language of science to an appearance that conforms to the principles of rational justification.[541] While traditional approaches in the philosophy of science allow for irrationality and context to influence the context of discovery, Feyerabend is not content with methodological anarchy as a characteristic of discovery, but instead proposes that the distinction between the context of discovery and justification, upheld in philosophy, is purely artificial and does not reflect the true nature of scientific knowledge.[542] This proposal can be interpreted as placing both the rational (justification) and the irrational (discovery) on an equal footing, thereby allowing for the irrational to be as relevant to the acceptance of knowledge claims as the rational.[543] By removing the boundary between justification and discovery, this approach allows for the recognition of the contextual nature of justification, effectively resulting in the argument that, if the validity of knowledge claims are locally determined, it is not possible to arrive at a set of universal criteria according to which justification takes place.[544]

While Tell associates justification by procedure with action,[545] his discussion of this, in relation to the dimension of justification processes, elaborates on the epistemological implications only very briefly.[546] Here, specifically, he offers the argument that the justification of knowledge, when viewed from the perspective of tacit knowledge, knowing how and knowledge of acquaintance, draws on processes stemming "*from non-rational or performance-driven reference*."[547] Tell's argument here mainly focusses on juxtaposing Feyerabend and Polanyi's criticism of the scientific method as a means to explain knowledge creation. However, an understanding of how this argument relates to justification as practice, can be obtained from

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[540] Tell, F. 2004: 450

[541] Feyerabend, P. 1993: 17-18

[542] Feyerabend, P. 1993: 147 - 148

[543] Adams, J. 2007: 111-112

[544] Knorr Cetina, K. 1981: p 10 & 28: "I am referring here to Feyerabend's contention that the interpretations which scientists choose are relative to a cultural and historical context, and can only be understood if we look at these contexts. The thesis rules out the possibility of specifying a set of context-independent criteria according to which consensus formation proceeds."

[545] Tell, F. 2004: 451

[546] Similarly in his discussion, of the forms of knowledge that result from the intercepts between process and structures, is characterised by brevity in the attention that is paid to the element of action or practice

[547] Tell, F. 2004: 451

understanding how authors such as Rorty[548] relate the foregrounding of context to justification as arising from practice. In this regard, Guignon and Hiley[549] propose that following Rorty, in theory, where the justification of knowledge is positioned as a social practice, the only basis for agreeing certain knowledge claims is constructed in social settings, rather than a representation of universal criteria. Justification as such can therefore not be dissociated from its context and becomes a matter of "*what one's peers will let one get away with . . . this means that justification reaches bedrock when it has reached the actual practices of a particular community*."[550]

Tell[551] argues that representations of justification through performance are evident in organisational theory in the notion of action rationality. Action rationality is positioned as an approach to decision-making aimed at addressing two limitations following from decision rationality, namely uncertainty and the reduction of personal responsibility. In the instance of the former, Tell draws on Brunsson to argue that decision rationality, with its emphasis on the investigation of alternatives, increases uncertainty precisely because it is focussed on understanding many different possibilities. Furthermore, Tell argues that decision rationality is an attempt to reduce personal responsibility through the analysis of options and consequences. Here, it appears that the combination of these two factors is perceived as emphasising the risk inherent in a decision, and as a result acts as a disincentive for action, as decision makers attempt to avoid risk. Action rationality instead focusses on ensuring commitment to action[552] by actively ignoring "*alternatives and critical judgments*."[553] Rather, the focus in action

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[548] The use of Rorty to illustrate this argument draws on the parallels between his and Feyerabend's work, in as far as the rejection of a universal methodology (compare Hendley, S. 1991: Chapter 6) and their shared criticism of the distinction between the context of discovery and justification is concerned (compare Viale, R. 2001:07)

[549] Guignon, C. and Hiley, D.R. 2003: 10

[550] Guignon, C. and Hiley, D.R. 2003: 11

[551] Tell, F. 2004: 450-451: "In the same vein, but in the organizational domain, Brunsson (1982, 1985) develops a terminology in which he distinguishes between rationality and action rationality. The problem with a decision made in accordance with decision rationality is that it increases uncertainty by recognizing many alternatives and investigating their consequences. Analysis in a decision-rational manner also aims at active reduction of personal responsibility. Both the factors lead to a decrease in the willingness to take risks and thus to induce actions. In order to enhance action rationality, an impressionistic decision mode has to substitute for a prevailing rationalistic decision mode, Brunsson (1985) argues. In action rationality, it is the ignorance of alternatives and critical judgement that counts. Instead of judging the procedures followed, performance serves as justification. Similarly, March and Olsen (1989) call processes of justification by performance the 'logic of appropriateness', where organizations act 'ad hoc' grounded in questions of recognition, identity and rules (March, 1994)."

[552] Brunsson, N. 1982: 36

[553] Tell, F. 2004: 451

rationality is on ensuring motivation and commitment aimed at uniting support for the completion of action.[554] Brunsson explains how organisational ideology acts as the framework for enabling organisational action by reducing, rather than emphasising, the complexity of decision-making.[555] While ideology and processes, aimed at constricting the number of factors impacting decision-making, may be viewed as irrational, Brunsson argues that organisations' primary challenge is not taking decisions (as the view of rational decision-making would suggest), but rather taking organised action.

Tell further argues that a kindred notion of organisational decision-making, as based on appropriate action, is found in the concept of the "*logic of appropriateness*" as presented in the work of March and Olsen.[556] In this view, behaviour is directed by rules that are accepted as representing appropriate action.[557] As a consequence, justification by procedure can itself be seen as a subset of appropriate behaviour in a given context, i.e. in certain instances, taking decisions based on a rational decision model, may be prescribed and accepted as the correct process to follow.[558]

4.4   Knowledge ideal types

Having identified the dimensions of justification, Tell distinguishes between the four ideal types of knowledge that are grounded in the justification contexts introduced by the intersection of the two dimensions. Each of these ideal types is discussed in detail in the remainder of this section.

4.4.1   Objective knowledge

Tell's notion of objective knowledge draws on conceptualisations that position knowledge as existing independently of humans and arrived at through rigorous scientific method.[559] He proposes that, philosophically, one such view of knowledge is discernible in the work of Popper,[560] who conceives of objective knowledge as existing independently of belief. Popper

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[554] Brunsson, N. 1982: 36

[555] Brunsson, N. 1982: 42

[556] Tell, F. 2004: 451

[557] March, J.G. and Olsen, J.P. 2004: 02

[558] Tell, F. 2004: 451

[559] Tell, F. 2004: 452

[560] Tell's use of Popper to illustrate knowledge that results from an essentially foundationalist argument may be rather controversial given Popper's opposition to the notion of foundationalism and moreover justificationism, see for example Popper, K. 2002: 22-23 and Firestone, J.M. and McElroy M.W. 2003b: 04

proposes that objective knowledge is the mainstay of the advancement of human knowledge,[561] and formulates this knowledge as existing in the realm of World 3, in his pluralist ontology, as "*objective thought contents*."[562] Here, thought contents exist independently of any knowing subject, as their existence is not a function of humans having knowledge of a World 3 object.[563] Rather, World 3 objects exist as if they represent a physical characteristic of a physical[564] object. In the physical world the existence of a characteristic, i.e. the hardness of stone, is not dependent on any human experience of the characteristic; in other words, it exists independently of human knowledge or belief. Popper conceives of objective knowledge as representing a similar structure, so that in World 3, thought contents exist which may never be discovered by humans, but their existence is not refutable based on a lack of human knowledge.[565]

The second component of objective knowledge in Tell's ideal type relates to Popper's notion of the scientific method as the procedure through which knowledge is validated.[566] Here, the emphasis of method is on the procedures that allow for the distinction between myth and knowledge.[567] While Popper proposes a critical methodology[568] which in content is intended to be substantively different from the positivist scientific method,[569] the procedural notion of justification in objective knowledge remains pertinent in establishing the objectivity of scientific claims, as Popper declares that "*the objectivity of scientific statements lies in the fact that they can be inter-subjectively tested*."[570] This ability to objectively test statements relies on the requirement that observations are regulated and repeatable, as this provides the basis for

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[561] Tell, F. 2004: 452: 452: ". . . Popper argues that there is another, objective world, which consists of objective theories, objective problems and objective arguments. . . . In Popper's view, there is objective knowledge independent of anybody's subjective belief. We can thus speak of objective knowledge without entering the subjective minds of individuals. . . . The prime example of objective knowledge is scientific theories, which exist even though no one goes around 'knowing them'. The scientific method is one where ideas are scrutinized by empirical testing and discussions between scientists. Moreover, the scientific method has supreme status in the way it enhances the growth of scientific knowledge"

[562] Kletzl, S. 2014: 119

[563] Tell, F. 2004: 452 and Kletzl, S. 2014: 119

[564] Note that Popper identifies the existence of physical objects with World 1 – see for example Popper, K. 1978.

[565] Kletzl, S. 2014: 119

[566] Tell, F. 2004: 452

[567] Popper, K. 1962: 127

[568] Popper, K. 1962: 127

[569] Popper, K. 2002: 28

[570] Popper, K. 2002: 22

testing the veracity of any claim.[571] This methodological rigour of scientific knowledge also establishes, for Popper, the reason why belief does not justify knowledge, as belief, as the basis for knowledge, cannot be objectively examined.

Organisationally, Tell relates objective knowledge to instances in which organisations find external standards against which internally created knowledge can be evaluated.[572] As examples of such standards, he refers to "*technological progress, the scientific community or markets.*"[573] At the same time, there is the expectation that organisational members involved in new knowledge creation possess knowledge of the technical methods and procedures to be followed in creating knowledge, as well as formal knowledge of relevant disciplines. Justification of knowledge, in these contexts, draws directly on the ability of knowledge workers to illustrate the potential to replicate findings under different circumstances. The ability to abstract knowledge from its context therefore justifies the claim.[574] Related to the former, where knowledge exists as embedded[575] in technology, its justification arises from "*the ability to transfer an application between products and firms.*"[576] This knowledge transfer is effectively the replication of objective knowledge, accompanied by the expectation that knowledge will remain valid under different circumstances. Therefore, even in instances where knowledge creation results from the violation of standard scientific principles, its acceptance is conditional on the ability to replicate findings using the scientific method. External justification, in organisational knowledge, however, also involves the ability of knowledge claims to withstand criticism from a wider audience than represented by those directly involved in the formulation of the knowledge claim.[577] In this regard Tell argues that, where knowledge is procured outside of the organisation, validation results from disputes and active criticism of a solution to ensure adherence to accepted standards.

Finally, the objectification of knowledge in this context of justification creates knowledge "objects" through the process of codification. Here the requirement of replication requires that

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[571] Popper, K. 2002: 23

[572] Tell, F. 2004: 452

[573] Tell, F. 2004: 452

[574] Tell, F. 2004: 452

[575] Note that the notion of embedded knowledge here draws on the conceptualisation of Kinghorn, J. 2007

[576] Tell, F. 2004: 453

[577] Tell, F. 2004: 453

objective knowledge is stored as findings in order to ensure repetition.[578] This process of codification results in further decontextualization of knowledge, reinforcing the objective character of knowledge by distancing it from both the knowing subject and the context under which it was created.[579]

4.4.2 Personal knowledge

In the context of internal, performance-based justification, Tell associates the resulting ideal type of knowledge with Polanyi's concept of tacit knowledge, describing personal knowledge as resulting from the idea that "*knowledge . . . is known by someone subjectively*."[580] For Polanyi, tacit knowledge embodies the shared structure of all forms of knowledge, representing the principle that there are no instances of knowledge which are not underpinned by skilful action.[581] Central to this notion is the inseparability of knowledge and the knower, and an "*acritical attitude*"[582] toward justification. The former results in the argument that all knowledge is fundamentally linked to the commitment of the knower to a belief. Polanyi describes this commitment as the reliance that individuals place on external objects in an effort to achieve an outcome.[583] External objects are here not conceived of only as physical objects, but also intellectual objects, such as interpretative frameworks and schemes.[584] The externality of objects disappear when they are used in skilful action "*in a process of assimilation by which we identify ourselves with them.*"[585] This process results from an uncritical acceptance of objects, in which they become part of the knower and are given meaning through action.[586] For

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[578] Tell, F. 2004: 453

[579] See Knorr Cetina, K. 1981: 47: ". . . once the selections of the laboratory have been crystallised into a scientific result, the contingencies and contextual selections from which it was composed can no longer be differentiated. In fact, the scientists themselves actually decontextualise the products of their work when they turn them into "findings", "reported" in the scientific paper."

[580] Tell, F. 2004: 454: "According to Michael Polanyi (1962, 1983) there is a tacit component of knowledge that – contrary to the notion of objective knowledge – stems from an acritical attitude. This gives rise to personal knowledge, knowledge that is known by someone subjectively. All explicit, articulated knowledge also involves a tacit act of knowing, which is quite different from what is articulated. Knowledge involves a personal commitment, where the belief and the 'tacit assent' of the knower are central. . . . Tacit knowing is like letting something become a tool for our use and allowing it to become an extension of us."

[581] Tsoukas, H. 2002: 3-4

[582] Tell, F. 2004: 454

[583] Tell, F. 2004: 454

[584] Polanyi, M. 1962: 62

[585] Polanyi, M. 1962: 63

[586] Polanyi, M. 1962: 63 and Tell, F. 2004: 454

Tell this process, through which tools become extensions of the knower, represents the core of tacit knowledge.

Tell explains that, as tacit knowledge requires a personal commitment to belief, the only basis for its justification is the belief itself. Polanyi describes this circularity of justification in tacit knowledge as the idea that "*Any enquiry into our ultimate beliefs can be consistent only if it presupposes its own conclusions. It must be intentionally circular . . . Logically, the whole of my argument is but an elaboration of this circle; it is a systematic course in teaching myself to hold my own beliefs.*"[587] This idea, that tacit knowledge can only be circularly justified, results from Polanyi's argument that all knowledge involves tacit knowledge and that ultimately knowledge involves more than can be expressed.[588] As a result, the justification of knowledge can never be fully explained in terms of tracing a belief back to its origins, and can never be comprehensively justified precisely because it can never be completely externalised.[589] For Tell, the implications of this view of knowledge are that tacit assent in itself represents a personal judgement, suggesting that the knowing subject effectively engages in an internal process of justification. The validity of knowledge, in this process, is not determined by the subject's ability to rationally explain beliefs, but rather "*by the act that an individual is able to perform.*"[590]

Organisationally, Tell locates tacit knowledge, and the accompanying processes and structures of justification, in the personal knowledge of employees' know-how. Such knowledge is described as beyond conscious awareness and likened to gut feel and sensing.[591] In many instances, these abilities, that defy detailed description beyond the notion of action, are considered essential to the ability of employees to execute organisational objectives. While personal knowledge features in both routine and unfamiliar work, it is specifically during the

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[587] Polanyi, M. 1962: 315

[588] Compare Tsoukas, H. 2002:06: "We must rely (to be precise, we must learn to rely) subsidiarily on particulars for attending to something else, hence our knowledge of them remains *tacit* . . . In the context of carrying out a specific task, we come to know a set of particulars without being able to identify them. In Polanyi's (1966:4) memorable phrase, "we can know more than we can tell"."

[589] Virtanen, I. 2010: 06: "Thus, in addition to being capable of stated clearly, explicitness seems to refer also to the possibility to trace the origins of the focal knowledge – the justification *would* make knowledge more explicit. However, *knowledge cannot be exhaustively justified because it is always based on unspecified particulars . . .*"

[590] Tell, F. 2004: 454: "The tacit assent forms a personal judgement, coming from within the knower. Polanyi's description of tacit knowledge thus resembles a subconscious process internal to the subject. This internal process has great practical bearing on knowing and is justified not in the way arguments are or are no found valid, but by the act that an individual is able to perform."

[591] Tell, F. 2004: 454

latter where Tell points toward the importance of evaluating knowledge not by "*Why it works*", but by "*What works*."[592] This turn toward justification by performance is perceived as an outcome of venturing into the realm of the unknown, where little formal scientific knowledge exists and the focus shifts toward the achievement of an outcome.[593]

4.4.3   Subjective knowledge

For Tell, the notion of subjective knowledge is fundamentally characterised by a structure of attempting to achieve truth, where truth is intended as the coherence of a belief with other beliefs. This coherence with other beliefs implies the subjective/local nature of justification, but the process of arriving at truth, as the objective of justification, is characterised by a procedure of reasoning.[594] In epistemology, the ideal type Tell turns to as exemplifying subjective knowledge is Lehrer's coherence theory of justification. Here Tell argues that the internal structure of Lehrer's proposal resides in the condition that justification requires "*an internal criterion of coherence*."[595] This internal criterion is related to beliefs held by a knower, and the reasons for accepting that a belief is justified, in relation to this criterion, are related only to the benefit that the knower derives from holding such a belief. In order to justify beliefs in relation to other beliefs Lehrer invokes the concept of doxastic system, which Tell describes as a "*justification system of beliefs*."[596] This system consists of subjective statements expressing what the knowing subject believes; coherence here therefore follows from how a belief fits within the structure of beliefs, rather than from coherence with other beliefs.[597]

As the reasons for holding beliefs in the doxastic system concerns the utility of beliefs, rather than the normative nature thereof, the doxastic system in itself is not sufficient to determine if

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[592] Tell, F. 2004: 455: "There are very few scientific methods and formulas to be used for design. Therefore, trial-and-error processes characterize the design phase. 'What works' becomes the standard for evaluation, not 'Why it works' . . ."

[593] Tell, F. 2004: 455

[594] Tell, F. 2004: 456: "Justification has truth as an objective, but not the truth set by an external standard. Instead, it is a construction of internal relations in the subjective world and the assumption that the believer is veracious, i.e. rational in seeking truth. For a statement to be true, it must cohere with other statement in the subjective world. . . . In the search for subjective coherence, the knower will be able to choose between competing statements and therefore maintain an experienced subjective justification of his belief: obtaining subjective knowledge. This implies a procedural mode of justification, since a rational activity will take place in comparing the statements in the epistemic field, albeit local. Moreover, inherent in his account of knowledge and justification is a belief in the rational striving for something similar to truth, and Lehrer uses decision theory to show the utility for a veracious man to believe only what is true."

[595] Tell, F. 2004: 455

[596] Tell, F. 2004: 455

[597] Lehrer, K. 1974 quoted in Tell, F. 2004: 455 – 456; Duran, J. 1989: 38-39

a knowing subject is epistemologically justified in holding a particular belief.[598] Therefore, while Lehrer's proposal of subjective knowledge looks to the knower for the structure of justification, it turns to rationality and procedure to relate justification to truth. Tell explains this process by referring to the importance of truth as the objective of justification in Lehrer's theory.[599] In this regard he notes that truth too relates to internal standards, and more specifically the "*construction of internal relations in the subjective world*."[600] The construction of a truthful doxastic system here is interpreted by Tell as central to the assumption of the veracity of the knowing subject. The intention of the knowing subject is therefore to attempt to uncover truth in a rational manner.[601] Procedural rationality, as associated by Tell in the context of subjective knowledge, is an outcome of the process of the comparison of statements in an attempt to identify the statement with the highest degree of coherence with the belief system.

Tell argues that organisational coherence is exemplified in the explicit statements of project objectives and plans, which create a shared framework for participants to make sense of, when projects are discussed. In this regard, he proposes that the articulation of such a framework in documents provides organisational coherence by encompassing the organisational ideology as a common denominator binding various members and departments in a project together. Similar outcomes of coherence are of concern when organisations evaluate the strategic fit of the proposed projects. Here the emphasis is on the extent to which projects fit with what the organisation believes its core competencies and guiding business principles to be. The pervasiveness of a belief system in the organisation creates an implicit screening mechanism for new ideas, which do not require an ongoing formal process, but rather become part of what organisation members do on a continuous basis.[602]

In focussing on how coherence is achieved through procedural means, Tell identifies two broad mechanisms. Firstly, he identifies the localisation of procedure with the objective of illustrating coherence with local requirements, in the application of general methods of procedural justification in the organisational context. While procedures, such as testing and prototypes, are general, the criteria for success and evaluation of success are localised based on their subjective origins in the organisational belief system. In localising procedures, guidelines for

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[598] Tell, F. 2004: 455 and Duran, J. 1989: 39

[599] Tell, F. 2004: 456

[600] Tell, F. 2004: 456

[601] Tell, F. 2004: 456

[602] Tell, F. 2004: 456- 457

evaluating the fit of a potential solution with organisation-specific requirements are derived through the understanding that follows from gathering insights for specific circumstances.[603]

Secondly, Tell draws on the broader application of coherence outside of the realm of philosophy.[604] Here, he is specifically concerned with the general characteristics of coherence in reasoning, as representing the process through which relationships between seemingly disparate impressions are established. In the field of knowledge creation, Tell draws on Nonaka's arguments for the use of metaphor and analogy, as well as Tsoukas' notion of analogical reasoning in organisation studies, and proposes that the use of analogical reasoning represents an instance of establishing procedural coherence. Without elaborating on the detail of analogical reasoning, it is worth noting that the predominant concern here, for Tell, is that this approach represents a structure of argument which is aimed at achieving coherence through reasoning by following a specific procedure. [605] Furthermore, in as much as the origins of analogy in metaphor are considered as a deficient method of scientific reasoning,[606] Tell argues that analogical reasoning plays an important role in the initial development of new concepts.[607] Amongst others, analogical reasoning provides an argument that, while knowledge discovery and justification in this context are still procedural, they do not require the strict adherence to the process required for objective knowledge. In this way analogical reasoning "shelters" the justification of concepts from harsh scrutiny, allowing the concept to be tested and evaluated through criteria that are more conducive to innovation.[608]

4.4.4 Institutional knowledge

To exemplify how institutional knowledge is created in the context of performance-based external justification, Tell draws on Wittgenstein's concepts of certainty, rules and their relationship through language games.[609] Here it appears that Tell is first of all concerned with

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[603] Tell, F. 2004: 457: "In the organization conducting research in electrical engineering, a 'case study' type of methodology, where insights are generated for particular circumstances instead of general claims, was used. Nevertheless, by forming a more or less coherent system of results in the field it is possible to develop some general practices or 'rules of thumb' that could be used internally for product development."

[604] Tell, F. 2005: 07

[605] Tell, F. 2005: 09

[606] Compare Tsoukas, H. 1993: 333

[607] Tell, F. 2005

[608] Tell, F. 2005: 18: "As discussed by Hughes (1989: 25; 27), inventors needed "sheltering" from the outside world where hostility and ridicule could undermine the confidence of the inventor. Drawings and models could easily be "suffocated" in such contexts."

[609] Tell, F. 2004: 458

establishing a strong notion of practice[610] as contained in Wittgenstein's proposal that the philosophy of language involves a move away from logic and ideals, toward practice and action.[611] The notion of language games introduces this concept by proposing that meaning derives in practice, and not from correspondence between external objects and what they are named.[612] Understanding, in this view, follows from *know-how* as encapsulated in both *knowing how* to identify a concept, and *knowing how* to act in relation to the concept.[613] Importantly, language games are implicitly linked to rules,[614] but in Wittgenstein's theory these rules do not represent external facts reflective of an objective reality.[615] Rather, Wittgenstein proposes that the rules of a language game exist only in practice.[616] In this regard, Bloor explains that Wittgenstein proposes that rules appear as if they exist in an objective reality as a result of unreflective practice. In this instance, the illusion is created that rules exist separate from practice, but the former only result from the degree to which socialisation of rules allows humans to behave mechanistically in practice.[617] In Wittgenstein's view, rules therefore exist only as socially constituted, and are self-referential in as far as they can be understood only in the context of the actions they represent in a particular practice, and the way these actions are described.[618] As participation in a language game requires the use of rules, the quality of performance against the rule becomes the criteria for justification.[619] However, both the rule and the judgement of performance against the rule originate from social agreement in a

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[610] This observation is based on the interpretation of Tell's argument relating to Wittgenstein's description of the ideal as unshakable in Wittgenstein's *Philosophical Investigations*. Tell, F. 2004: 458: "The philosophy of Ludwig Wittgenstein (1953, 1972) and his idea of certainty and rules shed some light on the justification context for institutional knowledge. We are justified in adhering to certainties in playing language-games. Public knowledge has its limits—as it were—on the outside. We may run into the walls of language, finding its constituent logic inexpressible within the realm of language itself. "The ideal, as we think of it, is unshakable. You can never get outside it; you must always turn back. There is no outside; outside you cannot breathe. – Where does this idea come from? It is like a pair of glasses on our nose through which we see whatever we look at. It never occurs to us to take them off." (Wittgenstein, 1953: 45)."

[611] See Pradhan, R.C. 2008: 22

[612] Moyal-Sharrock, D. 2011

[613] Schatzki, T. 2005: 62 – 63

[614] Tell, F. 2004: 458

[615] Bloor, D. 2005: 104

[616] Bloor, D. 2005: 104

[617] Bloor, D. 2005:104

[618] Bloor, D. 2005: 114

[619] Tell, F. 2004: 458: "Certainty, as well as rules, is shared within a community of practitioners of language-games. Wittgenstein argues that the one way to find out something about the rule is by playing the game—using the rule. This does not mean, however, that the rules of the game are completely arbitrary. Actually, you play 'well' (i.e. perform) from the standpoint of the rule. We learn the functions of rules and become trained to obey 'orders' presented to us by them."

particular community.[620] Unlike the notion of procedural justification, there is then no basis in Wittgenstein's philosophy for arguing that the knower can stand objectively, and removed, from the procedure through which knowledge is gained, as these procedures exist only as the action of knowing subjects and not as a set of rules for uncovering knowledge independent of knowing subjects.[621]

For Tell, Wittgenstein's rules represent a form of life that defines the context in which the knowing subject exists. Tell's argument, regarding forms of life, in turn relates to his idea that justification of institutional knowledge takes place against an external structure, as "*a form of life is shared and not internal to one single unit*."[622] Here, Tell proposes that the external structure of justification, invoked through rules and certainty, represents an important distinction between Wittgenstein and Polanyi's philosophies. Whereas Polanyi conceives of tacit knowing as inherently private, Tell interprets Wittgenstein's notion of certainty as inextricably linked to *"something that by its nature must be public since it is part of a game."*[623] The notion of an external structure to the justification of institutional knowledge resides on the one hand in the rules of a language game, as in Tell's interpretation these are public, if not always explicit, while on the other hand it is located in that which is taken for granted. This notion of certainty does not imply absolute truth, but rather shared understanding within a community where language games take place.[624] In this regard, Tell's interpretation of certainty appears to draw on the idea that there are agreed and accepted ways of knowing, which are imparted through socialisation and training in various language games.[625]

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[620] Compare Shotter, J. and Katz, A.M. 1999: 81: "In other words, the activity of explaining thing belongs, as Wittgenstein (1953) would say, to a particular "form of life" with its associated "language-game". As such, it belongs to a particular *disciplinary* sphere of human activity in which one must 'get things right': in such spheres, one must act according to pre-established standards, and talk and/or write *about* things in accord with procedures for proving one's statements *true*."

[621] Tell, F. 2004: 458

[622] Tell, F. 2004: 458

[623] Tell, F. 2004: 458. As argued by Tell this also represents the primary difference between his and Tsoukas' interpretations of Wittgenstein and Polanyi. Tell's distinction between the structure of justification as internal and external results in his instance on treating the philosophies of Wittgenstein and Polanyi as separate (see Tell, F. 2004: 465) compared to Tsoukas' "fusion" of the two philosophies based on the commonalities of social construction (see Tsoukas, H. 2005: chapter 5)

[624] Tell, F. 2004: 458 "The justification mode for institutional knowledge is performance; it is the practical actions that determine how well the game is played (understood). Even though the rules are socially constructed, they provide the form of life in which the knower resides. A form of life is shared and not internal to one single unit, hence institutional knowledge is provided by external justification."

[625] Also compare Stickney, J. 2008

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The foregoing argument regarding the external structure of justification in institutional knowledge plays an important role in Tell's interpretation of organisational knowledge practices that align to this ideal type.[626] While he acknowledges that external constructions can straddle divergent organisations and provide a shared framework for action, his particular concern is with the isolating effects of varying justification criteria, which result from the conflicting practices represented in a single organisation. As justification criteria are determined by the community to which practitioners belong, this implies than in any given organisation[627] there is representation from a diversity of practices, each with a potentially different set of criteria for justifying knowledge. To exemplify this, Tell refers to differences that result when viewing knowledge from the practice of scientific research compared to the practice of commerce. Whereas scientific research emphasises justification by doing things correctly, commerce emphasises justification by doing things profitably. The extent of these differences touches on pragmatic concerns relating to what is considered relevant in a particular "thought world". Justification is therefore determined by its ability to deliver on practical concerns.[628] For Tell, the presence of institutional knowledge, understood as representing divergent rules, where performance is measured in practice, implies multiple interest groups "*all justified in different forms of life*,"[629] representing the potential for conflict. The latter is expressed in ideas that are contradictory, and the failure of different departments to understand each other's point of view. From Tell's commentary, it appears that he views the resolution of such conflict as particularly difficult, given that justification criteria draw on practices that are external to the organisation and can only be evaluated in performance.[630]

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[626] Tell, F. 2004: 459: " . . . Tell's (1997) contemporary study of a joint venture between an electrical equipment manufacturer and a utility shows that there is divergence in institutional knowledge in the relations between the researchers working in the joint venture and its principal owners. This stems from the roots they have in the scientific community vs. the commercial community. The researchers attack problems in a way that is highly scientific and problem-solving, justified by their background as trained researchers acting in a research community. The principals of the joint venture inhabit another life-world, where products and efficiency count. They are justified by the way they are able to satisfy customer and shareholder expectations and needs, provide products and attain profitability."

[627] Organisation here is used loosely to also include cross-organisational co-operation

[628] Tell, F. 2004: 459

[629] Tell, F. 2004: 459

[630] Tell, F. 2004: 459 – 460: "Diverging world-pictures and rules develop in different parts of the organization. In development projects, these rules collide and tension is created. People come from different departments with different ways of thinking. . . . In these situations, different ideas clash and organization members feel that they are 'speaking different languages' (Nonaka and Takeuchi, 1995: 99). In each institutional context, organization members develop diverging coding schemes (Allen, 1977: 139) or, rather, rules for their coding schemes. This kind of institutional knowledge thus implies justification with reference to an external

4.5 Dynamics of organisational knowledge

In expanding on the relationships between the different justification contexts, and the resulting ideal types of knowledge, Tell argues that the different contexts are interrelated through the support and contradiction they represent in relation to each other, as well as the transformation of the ideal types from one type to another.[631] Elaborating on this argument, he focusses mainly on illustrating how different processes of justification affect organisational activities.

4.5.1 Objectification

As far as the justification of objective knowledge is concerned, Tell focusses on the process of codification as an example of the objectification of knowledge. Codification is related to the commodification of knowledge, i.e. an object, that can be purchased and re-used, providing the organisation with benefits such as a reduction in time spent on knowledge creation. At the same time, codification is considered an attractive option for organisations, due to its perceived benefit as protecting the organisation from knowledge losses that result from an over-dependence on tacit knowledge.[632] From the point of view of justification, Tell argues that, when organisations place a strong emphasis on the context of objective justification, at least two discernible influences on other justification activities are likely. Firstly, practices involved in justifying knowledge through other means may be discarded in favour of objectification, while secondly a focus on the need to for example codify knowledge "*may serve as a 'reality check' in localized organizational practices*."[633] The latter is specifically contextualised against the justification requirements of objective knowledge, as focussed on external and procedural means of arriving at knowledge. In this regard, arguably the outcome in the organisation would be an increased focus on how to translate local justification criteria into more general terms that would withstand the requirements of objective justification.

4.5.2 Personalisation

As a second transformation of knowledge, Tell identifies the personalisation of objective, subjective and institutional knowledge as the development of individual skills and routines in the organisational context. The process is arguably akin to what Nonaka describes as the internalisation of external knowledge, in as far as the objective here is to develop personal skill,

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community of practitioners (Brown J.S. and Duguid, P. 1991: 49), which is hard to articulate because it can be evaluated only on the grounds of performance."

[631] Tell, F. 2004: 460

[632] Principe, A. and Tell, F. 2001: 1376

[633] Tell, F. 2004: 460

resulting from processes such as learning, in which externalised knowledge becomes justified through action as personal.[634] In Tell's conceptualisation of personalisation, the outcome is focussed on the results achieved in performance and action, as individuals develop the capabilities required for skilful practice. On the level of individuals, the notion of personalisation is related to the skill of knowledge workers, both in relation to their productive capacity and the growing reliance of organisations on knowledge workers. In the case of the productive capacity of workers, Tell argues that the skills organisational members develop over time, in practice become an important source of organisational efficiency attached to specific individuals.[635]

The professionalisation of work, and the growing level of expertise embodied in knowledge workers, implies, in Tell's line of reasoning, an organisational recognition of the importance of the personal justification context. In this regard, it is possible to argue that the implicit value which organisations place on the skill of professional and expert knowledge workers, combined with the extent to which it is precisely this skill that is "sold" by knowledge-intensive organisations, acts as an implied acceptance of personal justification. The importance of personal knowledge in this instance is further reinforced by the notion that economic value in this instance, is the capacity, rather than the tangibility of skills, that is represented by knowledge workers.[636]

4.5.3   Institutionalisation

Tell relates the dynamic of institutional knowledge closely to the notion of communities of practice (CoP) as proposed by Brown and Duguid. The CoP perspective underscores the extra-organisational nature of work practice, and the bearing this has on an individual, and therefore ultimately organisational knowledge. In the context of justification, Tell argues that CoP, as a source of justification, emphasises the degree to which participation and action *serve as the primary ground for knowledge claims*."[637] Practice and knowledge, in this view, are conceived

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[634] Compare Nonaka, I. 1994: 19: "The other [mode] is the conversion of explicit knowledge into tacit knowledge, which bears some similarity to the traditional notion of "learning" and will be referred to here as "internalization"."

[635] Also see Lindkvist, L. Soderlund, J. and Tell. F. 1998: 944: "Such learning and knowledge then reside in individuals and remain largely 'tacit' rather than becoming firmly crystallized in impersonal guidelines . . ."

[636] Tell, F. 2004: 461. Also compare Winch, G. and Schneider, E. 1993: 923-924: ". . . what distinguishes a profession is that its 'product' is sufficiently intangible to prevent it from being traded as a commodity, yet sufficiently standardized to allow it [to] be differentiated from services provided by others, and therefore traded widely. It is this *standardized intangibility* which is central the KBO [Knowledge Based Organization]."

[637] Tell, F. 2004: 461

of as ultimately being more reflective of sub-cultures of shared identities than of the overall organisational culture. Resulting from this view, there is a strong sense of the external influences on organisational knowledge, questioning the notion of the degree to which organisational culture and identity influence institutional knowledge. Instead, the CoP thesis proposes that knowledge is institutionalised within organisations across members engaged in similar work, and outside of organisations through members' shared identities in a particular profession.[638] A consequence of this weaker notion of a single internal shared identity is the possibility for internal organisational conflict, resulting from the distinct views of knowledge associated with different CoP.[639] Tell argues that such conflicts may be both conducive, and limiting, to the creation of organisational knowledge, as disagreements may, on one hand lead to novel ideas, but simultaneously act as a barrier for the acceptance of knowledge claims against justification criteria that are not shared organisationally. Simultaneously, the possibility exists that institutional knowledge creates pressure towards conformity and in the process counteracts the ability of the organisation to generate new knowledge, as justification criteria are forced into a unified approach. In Tell's view the risk of this occurring is particularly great when institutional knowledge is viewed as "*facts . . . and taken for granted*."[640] In similar fashion to von Krogh, he points here to the difficulty of attempting to change accepted practice in order to allow for justification criteria to be influenced.

4.5.4   Subjectification

Tell's notion of subjectification can be conceived of as the process of justifying knowledge through coherently relating general, personal and institutional knowledge to an organisational system of beliefs. The emphasis here is therefore on localising knowledge by creating coherence. The latter results in procedures that are specific to the organisation, and in interpretations of knowledge that reflect the organisational ideology. In this sense, subjectification ties knowledge to the local context and, through enunciation, acts as a process of creating mutual understanding.[641] Subjective knowledge, however, also establishes the relationship between representation and action, as subjectification firstly draws on the reasoned

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[638] See Brown J.S. and Duguid, P. 2001: 201-202

[639] Tell, F. 2004: 461: "Diverging institutional knowledge may thus become a hindrance to communication and the sharing of knowledge within the organization . . . However, institutional knowledge and its justification context can also be conforming and preserving, leading to isomorphic pressures on organizations". Also see Brown J.S. and Duguid, P. 2001: 202

[640] Tell, F. 2004: 462

[641] Tell, F. 2004: 462

process of relating action to organisational belief systems, and secondly provides the "*sense and 'cues'*"[642] that enable organisations to act.

In the first instance Tell relates subjective knowledge to Weick and Roberts' concepts of the collective mind and heedfulness.[643] As a concept, the collective mind represents the proposal that the interrelationship between the actions of individuals working toward a shared purpose constitutes a capacity of the social group. The concept of mind here is intended to convey a disposition "*to act in a certain manner or style*."[644] When individual action is considered, rather than being rash or habitual, this action is characterised by heedfulness, and it is through heedful action toward a joint purpose that the collective mind emerges and becomes more intelligent.[645] For Tell the collective mind relates to justification through the characteristic of shared purpose, which he argues creates an internal mechanism of justification. Shared purpose then provides the justification for action, and in the context of the intelligence of the collective mind, heedfulness is required in the system and is achieved through reflection. This "*reflection on action*"[646] is a process of reasoning about coherence, based on the local context in relation to the shared purpose.[647] Organisational narratives are one of the processes that transmit and organise heedful action, by coherently relating the various aspects of knowledge, outcomes and meanings in a single story.[648] As described by Weick "*A good story holds elements together, which enables it to serve as guide for sensemaking and organizing*."[649] In relation to the divergence that institutional knowledge implies, subjective knowledge plays an important role in relating various practices in the organisations to a coherent system, i.e. the collective mind. As the requirement for justification here is found in heedfulness, it implies, according to Tell, a different mode of justification to that which is involved in pure practice or global rationality. What matters in this sense is context and the ability to relate action to a shared purpose.[650]

The second link between representation and action is established through the framework for action that subjective knowledge provides, both as the content of justified organisational

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[642] Tell, F. 2004: 463

[643] Tell, F. 2004: 462

[644] Weick, K.E. and Roberts, K.H. 1993: 361

[645] Weick K.E. and Roberts, K.H. 1993: 364 - 365

[646] Tell, F. 2004: 462

[647] Tell, F. 2004: 462

[648] Tell, F. 2004: 462 and Weick, K.E. and Roberts, K.H. 1993: 368

[649] Weick, K.E. 2011: 149

[650] Tell, F. 2004: 462 - 463

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knowledge, and as the processes for evaluation of knowledge.[651] In relating subjective knowledge to a framework for organisational action, Tell loosely draws on Weick,[652] and arguably proposes the general notion that a shared system of beliefs, such as that envisaged through subjective knowledge, guides organisational action.[653] In attempting to direct action, subjective knowledge may be codified as normative organisational expectations which represent a purposeful effort to create consistent action.[654] As explained by Tsoukas,[655] there is, however, a consistent tension between the normative and the practical in any given situation. This tension becomes resolved through local judgement of what makes sense under a particular set of circumstances. In Tell's argument the acknowledgement of such tension illustrates a further basis for the relationship between subjective knowledge and action, which results from the conflict between expectations and ongoing action. Here Tell is particularly concerned with the creation of variety in knowledge systems that results from noise and creative chaos, which is resolved by drawing on divergent justification mechanisms which result in increasing organisational complexity.[656]

4.6 Implications

When considering the implications of Tell's framework, there are three underlying arguments that enrich an understanding of justification in practice-based theory. Primary among these is Tell's adoption of pluralism - an argument which underscores the complexity of the knowledge construct and concomitantly of justification practice. Crucially, this recognition of plurality in Tell's framework allows for organisationally relevant knowledge to include justification beyond that which can be explicitly stated and agreed upon. The second implication draws on the positioning of justification as a shared organisational activity. While Tell's notion of the

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[651] Tell, F. 2004: 463: "[Subjectification] also occurs in the design of policy documents, administrative structures and other formal organizational devices that purport to code organizational expectations of its members. Such normative expectations are, compared with institutionally rule-based and situated practices in organizations, to some extent manageable by organizations (Tsoukas, 1996). However, inherently 'open' internal concepts may also induce organizational action through provocation, and force organization members to shun what is conceived of as 'objectively possible' through interpretation in daily activities, making them 'more noisy' (Tsoukas, 1997) and creating 'creative chaos' (Nonaka and Takeuchi, 1995). In this way organizations are able to complexify themselves as these subjective conceptualizations meet other justification mechanisms, generating greater variety in local knowledge systems."

[652] Tell, F. 2004: 463. "Subjectification in this sense facilitates organizational action through its ability to provide sense and cues."

[653] See Weick, K.E. 1995: 04 & 65

[654] Tell, F. 2004: 463. Also compare Tsoukas, H. 1996: 22

[655] Tsoukas, H. 1996: 22

[656] Tell, F. 2004: 463

justification context of subjective knowledge shows parallels with that of managerial justification theory, it also brings to mind the ongoing nature of justification as an activity that is not only of concern for the creation of new knowledge, but a characteristic of organisational sensemaking. Finally, it is argued that Tell's framework draws attention to the extra-organisational influences on justification practice, including those originating independently of the organisation and accepted as unproblematically true.

4.6.1 Pluralist justification

Although the notion of a pluralist epistemology is, arguably, not a highly-developed concept in KM,[657] pluralistic approaches share certain common characteristics across the field of KM, philosophy and epistemology. In this regard, epistemic pluralism has two broad implications for understanding validation from a KM perspective, both of which are discernible in Tell's work. Firstly, pluralism is offered as an alternative to monist conceptions of knowledge in various forms. Secondly, resulting from this, pluralism maintains a degree of complexity, rather than dogmatism in the knowledge construct.[658]

Arguably one of the most important contributions of Tell's approach to justification is its inclusion of non-propositional justification criteria. By allowing for this inclusive approach, and furthermore by not situating personal knowledge merely in the realm of the pre-articulated, Tell addresses, from a validation point of view, one of the more fundamental issues in KM theory, namely the exclusion of tacit knowledge as a relevant concern in justification.[659] Consequently, Tell does not reduce the validation concern in the case of tacit knowledge to a model where explication is required.[660] In relation to the exclusion of tacit knowledge, Schneider argues that tacit knowledge, more so than explicit knowledge, represents the primary source of advantage in the KE. As a result proposals such as that of Schreyögg and Geiger (see Chapter 2), to employ the validation of knowledge as a means to exclude tacit knowledge from

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[657] While pluralism is often implicit in the work of many authors in the KM field, it is seldom referred to as such. Blackler (Blacker, F. 1993) for example does not explicitly refer to his own approach as pluralist and Spender, in his foreword to Boisot's *Knowledge Assets* (Boisot, M. 1998), classifies Boisot's framework as pluralist, while Boisot himself refrains from discussing pluralism in any detail

[658] Compare Nicolini, D. 2009: 488 – 489 and Schneider, U. 2007: 628 - 629

[659] Compare Schneider, U. 2007: 627, who criticizes Schreyögg and Geiger's proposal for the requirement that validation can only take place where "propositions, as well as arguments, need to be stated in language."

[660] von Krogh, in his collaborations with Nonaka, serves as an example of the idea that the organisational justification of tacit knowledge involves only forms of tacit knowledge that have been explicated. For example, von Krogh, G., Kazuo, I. and Nonaka, I. (2000: 94-97) describe how new knowledge is created through firstly "sharing tacit knowledge", followed by "creating concepts" from this knowledge and in the justification phase evaluating the concept.

the knowledge construct in KM, is seen as reducing knowledge validation, in the context of the KE, to something of only marginal interest to organisations in practice.[661] Concerning the limitation on validation as applying to tacit knowledge only once it has been explicated, Harmon[662] points to traditional epistemology as firstly ignoring non-propositional knowledge and secondly being incapable of providing justification criteria for knowledge that has not been explicated. The first of these issues relates to Schneider's criticism and is a fundamental limitation of monist conceptions of knowledge as propositional or linguistic only.[663] In this sense, traditional epistemology cannot provide justification criteria for knowledge that is purely justified in action. Even though Nonaka, and later von Krogh's, theory of justification in the KCC draws on criticism of traditional philosophical approaches, this limitation of classical epistemology has been retained in their approaches in as far as any organisational justification of knowledge requires knowledge to be propositional (see Chapter 2, section 2.3.2.1). An important outcome of Tell's pluralist framework is therefore to position the justification of knowledge in KM away from epistemology's concern with propositional knowledge, toward KM's concern with knowledge as action. Here Tell's notion of personal knowledge is viewed as a legitimate use of the terminology "to know", as the grounds for this claim are recognised as existing at the level of the individual and proven through her ability to act skilfully.

The second contribution from Tell's theory relates to the general nature of pluralist approaches and their objective to supplement, rather than subtract from, the concept of knowledge. In this regard, in as much as pluralism in KM evolved as a critique of positivism,[664] it is not an attempt at denying the validity of scientific methods of knowing, but rather an argument to draw attention to the limitations of the view of knowledge encapsulated in positivist epistemology. Pluralism, in this sense, is an argument for recognising that the positivist view of knowledge must be complemented by other forms of knowledge.[665] This notion, of the partiality of positivism, finds expression in the acknowledgement of the duality of knowledge, and the

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[661] See Schneider, U. 2007: 627: "If knowledge management is guided by such a narrow concept, efforts will concentrate on only the tip of the iceberg. As briefly pointed out above the creation of competitive advantage depends on the interplay between knowledge and knowing and needs to include the tacit, procedural and intuitive side."

[662] Harmon, I. 2014: 02

[663] Compare Harmon, I. 2014: 84

[664] See Spender, J.C. 1996. Note that this characteristic of Spender's epistemological pluralism in KM is shared with the philosophical treatment of epistemic pluralism as discussed by Healy, S. 2003

[665] Healy. S. 2003: 694

necessity of the co-existence of different ways of knowing for either to have meaning.[666] Following authors who support pluralist views of knowledge in KM, the acceptance of the plurality of epistemologies and knowledge "types" allows the notion of knowledge to retain its complexity. This complexity is seen as a method to enrich theorising and thinking,[667] rather than the "*evidence of disabling fragmentation*"[668] in KM. Therefore, pluralism's plea for tolerance of difference is a proposal for discourse between different epistemologies[669] which allows the complexity of the knowledge concept to be kept intact. Schneider's argument on the "fuzziness" of the knowledge concept illustrates that this complexity is useful, not only in KM theory, but also practice, as it mirrors the complexity of management activities.[670] A similar argument is proposed by Glynn *et al*,[671] who take on board Weick's advice to complicate organisational theorizing rather than simplify it, and further argue that pluralist theories achieve more accurate representations of organisational complexity.

Against this background, if Tell's claim is accepted, that knowledge is a word used in organisations where the acceptability of its use is determined by situated, collective evaluation of its use,[672] there can be no objective measure for justification criteria, as only practice determines what is acceptable in given circumstances. In this sense, the justification concept in the organisation is kept open, and organisational members can claim to know on different and competing grounds. Which grounds for justification prevail, is then determined in practice. Justification in this sense remains a complex process even if there are generally discernible patterns on which claims to validity draw.

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[666] Spender, J.C. 1998: 236

[667] Nicolini, D. 2009: 490

[668] Spender, J.C. and Scherer, A.C. 2007: 13

[669] Spender, J.C. and Scherer, A.C. 2007: 15 - 16 " . . . every workable epistemology gathers up more or less the same components and, because of that, different epistemologies can be present within the same discourse. So epistemologies are not incommensurable and unable to enter a discourse but may be incommensurate in the various notions of knowledge each allows."

[670] Schneider, U. 2007: 630: "It is this awareness of multiple perspectives in their own right, which I term enlightened fuzziness. Only after having thought about many alternatives can a sound decision be taken for one of them and later easily reversed. In contrast to this, are those selections directed by tradition, coincidence or dogmatic insistence on a one sided view."

[671] Glynn, M.A., Barr, P.S. and Dacin, M.S. 2000: 728: "What has resulted is an emphasis that overlooks or occasionally disadvantages the study of pluralism and its attendant politics in organizations. . . . our theorizing seems to have emphasized generalizability and simplicity over accuracy . . . Thus, we suggest ways of responding to Weick's (1979) admonition to be more "complicated" in our thinking and, perhaps, theorizing that advantages complexity and pluralism."

[672] Tell, F. 2004: 446 - 447

4.6.2   Management as the coordination of justification practices

Tell's emphasis on the nature of institutional knowledge as drawing on divergent practices, and as open to external influences, accentuates the role of management in homogenising justification criteria toward coherence and shared interest. In this regard Tell observes that "*An important strategy for dealing with the variety of institutional influences on the organizations' knowledge is the use of subjective knowledge as a justification principle.*"[673] At the same time, the divergence in institutional knowledge is seen as a source of innovation.[674] This idea is reinforced in Brown and Duguid's comment that it is the ability of organisations to co-ordinate diverse practices which underpins competitiveness in the KE.[675] The impact of this understanding in KM theory is commonly expressed in the idea that successful knowledge creation requires cross-functional teamwork, but by the nature of conflicting knowledge bases, such endeavours require management to engage in providing a unifying framework.[676] In one sense, organisational knowledge creation in Tell's theory can therefore be understood as the process through which, in the context of subjective knowledge justification, both concepts and internal procedures are created, which provides a common framework across divergent forms of institutional knowledge. In both Tell's discussion and KM theory generally, this requirement takes on two discernible forms. On the one hand it focusses specifically on the requirements of purposeful attempts at organisational knowledge creation. Von Krogh and Nonaka for example argue for the creation of a knowledge vision which translates organisation strategy into "*the types and contents of knowledge to be created . . . thereby [providing] clear direction to the members of microcommunities* [sic] *within an organisation.*"[677] On the other hand, it focusses on the general organisational need for collective sensemaking. Concepts here are expressed, amongst others, in narratives emphasizing organisational members' ability to derive coherence from a unifying story.[678] Justification in this sense appears closely linked to Weick's proposal that it is "*understood as discourse that introduces legitimacy and stability into social action.*"[679] As a general function of management, Tell's notion of subjective knowledge, as

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[673] Tell, F. 2004: 463

[674] Tell, F. 2004: 461

[675] Brown, J.S. and Duguid, P. 2001: 207: "Ultimately, an organization's competitive edge, and hence survival, depends on its unique ability to coordinate knowledge across these divisions . . . better than both its competitors and the marketplace"

[676] See for example Un, C.A. and Cuervo-Cazzuro, A. 2004: S29 and Nonaka, I. 1994: 29

[677] von Krogh, G., Ichijo, K. and Nonaka, I. 2000: 115

[678] Tell, F. 2004: 462 - 463

[679] Weick, K. E. 2011: 144

providing the necessary "*normative expectations*"[680] for action, is echoed in management theory which underscores the importance of common sensemaking in organisations. This approach to sensemaking emphasizes the need to create procedures which lend predictability to the behaviour of organisational members.[681] This role, which Tell allocates to subjective knowledge, is arguably wider than the subjective knowledge at play when new organisational knowledge is justified. In this sense it emphasises how attempts toward maintaining coherence in divergent justification practices are an ongoing process of stimulating "reflection on action."

4.6.3 Influences on organisational justification

Related to the former, Tell's conceptualisation of justification entails a much broader notion of how justification in organisations takes place, as well as the extent to which it is influenced by justification criteria and practices not originating within the organisation. In this regard, both Tell's argument that justification needs to be understood as prevalent across organisational practices,[682] as well as the idea of the structure of justification originating externally to knowing subjects (be that organisations or individuals), have a number of important implications for an understanding of justification and knowledge as subject to, and developing in relation to, external influences. Firstly, the justification context of objective knowledge raises awareness of how the codification and embedding of knowledge resulting from the adoption of external criteria, affects the unproblematic acceptance of its justified nature. Tell's conceptualisation of objective knowledge draws on familiar images of knowledge as artefacts that have been abstracted and "*systematically formalized and codified*."[683] This is the image of knowledge as an object, abstracted from its context and presented as "*confirmed facts*."[684] In as much the justification context of objective knowledge creates true artefacts, i.e. knowledge encoded in documents and embedded in technology, [685] Tsoukas,[686] as well as Robertson *et al*,[687] indicate how the same principles apply to the practice of expert work in the KE. Here Tsoukas defines the expert system as an "*impersonal system of knowledge and expertise whose validity is*

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[680] Tell, F. 2004: 463

[681] Clegg, S. Kornberger, M. Pitsis, T. 2011: 20

[682] Tell, F. 2004: 445

[683] Boisot, M. 1998: 13

[684] Knorr Cetina, K. 1981: 30

[685] This classification draws on the knowledge distinctions identified in Kinghorn, J. 2007

[686] Tsoukas, H. 2005: Chapter 2

[687] Robertson, M. Scarbrough, H. and Swan, J. 2003

independent of those drawing on [it]."[688] Moreover the validity of expert systems, by virtue of the "impersonal" evaluation criteria applied to them, is implicitly trusted, and justification in this sense is assumed.[689] Where organisations therefore engage in procuring knowledge, be that as an object or service, they neither determine nor engage with the criteria that justify this knowledge. In this regard Robertson *et al* describes the process of procuring the services of a technology firm as one characterised by a the client's disinterest in the process of justifying knowledge, as the final product is justified by its status as a patent.[690]

A second implication of Tell's understanding of justification practices relates to Tsoukas' observation that trust in the validity of knowledge created by expert systems is also a function of ignorance.[691] Arguably in the KE where organisations are continually becoming increasingly reliant on the skills of expert workers, [692] the likelihood of managerial ignorance of specialised justification practice is much greater.[693] In this sense, organisations will inevitably place more trust in the validity of knowledge without necessarily understanding the criteria on which this is based. Therefore, while one can acknowledge that managerial standards of justification are likely to reference the overall subjective knowledge context of the organisation, justification at this level does often implicitly assume functioning justification practices at lower or specialist levels in the organisation.[694]

Related to the former, a third implication of Tell's external dimension of knowledge justification is the extent to which it allows for a relationship to exist between justification practice in and outside of the organisation. In this regard authors such as Brown and Duguid[695],

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[688] Tsoukas, H. 2005: 50

[689] Tsoukas, H. 2005: 50 and Robertson, M. Scarbrough, H. and Swan, J. 2003: 847

[690] Robertson, M. Scarbrough, H. and Swan, J. 2003: 848

[691] Tsoukas, H. 2005: 50: "Drawing on expert systems implies an attitude of *trust* in the expectations provided by them: a belief that such systems do work as they are supposed to. Trust in expert systems is related to absence in time and space as well as to ignorance. I have no idea how my computer functions, but I do rely upon those who have made it, who are physically absent from me, to guarantee that it does function as it is meant to."

[692] Blackler, F. 1995: 1029

[693] Brown, J.S. and Duguid, P. 2001: 201: "However, while accepting that firms may provide some degree of common culture for their members, it seems important to consider, for example, how much a CEO and a technician in a large Fortune 500 company really have in common."

[694] While this implication is raised here against a the justification context of objective knowledge, it is not necessarily limited to this expectation with regards to the capacity of knowledge workers, but could equally relate to the trust placed in the personal skills and practice of knowledge workers

[695] Brown, J.S. and Duguid, P. 2001: 203

as well as Swan *et al*,[696] comment on the importance of the membership of individuals in organisations to networks, by virtue of practice and professions, as this effectively mediates the relationship between the organisation and the environment. Knowledge and ideas, in this sense, flow between organisations as a feature of the networks to which individuals belong.[697] While on the one hand membership of such networks reinforces justification criteria that are accepted,[698] it simultaneously represents the channel through which the justification of new innovations or practice develops and reaches the organisation. Further to understanding how this occurs in management practice as discussed in Chapter 3, it is worth noting the nature of legitimisation that can occur in such networks, as the latter illustrates the basis for different means of justification. Here Newell *et al*[699] amongst others draw attention to the legitimation of knowledge in networks as originating from illustrated and tangible benefits, or the invention of concepts and rhetoric that legitimate a claim, or finally through the pressure toward adoption created in such networks. Where justification criteria develop from shared experience, they become concrete examples of practice that have worked elsewhere, and the reasons that accompany a knowledge claim can be expressed in familiar ways, often reiterating accepted criteria in specific communities, i.e. improved efficiency or increased profitability.[700] In contrast knowledge claims that are ambiguous, to a large degree "invent" their own justification criteria that attempt to establish a relationship with more familiar criteria. Such knowledge claims are for example justified by being "best practice", a criterion which is purposefully open-ended, thereby allowing for a multitude of possible specific organisational needs to be addressed by it. As a defining characteristic of social networks it facilitates the creation of awareness of the activities of other members. In this sense one of the aspects of knowledge flow in networks is knowledge of who is engaged in certain activities. This knowledge can act as justification for the adoption of new practices or ideas by creating "pressure" either based on the degree of adoption in the network (i.e. "all organisations in the industry are doing this") or by the perceived importance of adopters (i.e. "the industry leader has adopted this"). [701]

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[696] Swan, J., Scarbrough, H. and Robertson, M. 2002: 479

[697] Abrahamson, E. and Rosenkopf, L. 1997: 290

[698] This leads to the isomorphic nature of institutional knowledge as indicated by Tell, F. 2004: 461

[699] Newell, S. Robertson, M. and Swan, J. 2001.

[700] Newell, S. Robertson, M. and Swan, J. 2001: 07 and Abrahamson, E. and Rosenkopf, L. 1997: 291 - 292

[701] Abrahamson, E. and Rosenkopf, L. 1997: 291 and Newell, S. Robertson, M. and Swan, J. 2001: 07

4.7   Limitations

In as much as Tell's pluralist approach allows for conflicting justification practices to exist simultaneously, his framework does not address the possibility that certain justification practices may be privileged over others in the context of organisations. To a certain extent Tell's framework here therefore shares with that of von Krogh a lack of consideration for the practical impact of political and conflicting undertones in establishing justification practice. A second limitation of Tell's proposal results from his separation of the justification of personal knowledge from other justification contexts. In this regard, it is possible to argue that the pluralist framework proposed by Tell places emphasis on distinguishing knowledge ideal types at the cost of maintaining the inherent complexity of justification as inseparably tied to a tacit component. The final limitation considered here relates to the requirement of pluralist KM theory to provide a detailed understanding of the interaction between justification contexts. Here, the argument is put forward that Tell's pluralist framework does not provide a sufficiently detailed understanding of the full scope of interaction and complexity that would result from the simultaneous existence of multiple justification practices and contexts.

4.7.1   Privileging of knowledge in practice

Outside of the realm of KM, there is a growing realisation in epistemic pluralism of the bias inherent in the justification of particular claims to knowledge. In the philosophy of science, Healy argues that the realisation of epistemic pluralism in practice, is constrained by the "*epistemic sovereignty*" of scientific knowledge.[702] Amongst others, the former is evident in the questioning of justification criteria that are not based on acknowledged scientific procedures. Similarly Teffo[703] argues that western philosophical thought, in general, has marginalised and discounted other ways of knowing. As a result acceptance of knowledge can only be achieved by adhering to standards set externally to the social systems within which it developed. Following the arguments of these authors, it appears that for pluralism to amount to more than the theoretical legitimisation of different ways of claiming to know, it needs to address the practical constraints that epistemic sovereignty implies.

In the context of KM, the impact of the former on practice is noted as a preference among managers for quantified abstracted knowledge, i.e. the justification context of objective

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[702] Healy, S. 2003: 696

[703] Teffo, L. 2011

knowledge.[704] While Tell acknowledges that divergent justification criteria can result in conflict, his theoretical proposal does not address the potential for the unequal treatment which different grounds for knowing may receive in practice. Although this constraint is arguably related to the fact that his framework is intended as a clarification of justification criteria, rather than a practical guide to managing justification, the absence of consideration of this requirement creates a perhaps naïve view of justification practices in organisations. Furthermore, this limitation needs to be viewed against the broader critique of pluralism in general as not sufficiently concerned with the structural nature of influence.[705]

In Tell's model, subjective knowledge determines the meaning framework for organisational action, and, at the organisational level, is effective in achieving this by providing a homogenising framework for action. Considering that this is a function of managerial practice, and that this practice will be influenced by both institutional and external knowledge, bias, or preference for, a particular form of justification will find expression in the meaning framework provided.[706] Following Glynn et al[707] the pressure toward homogenisation manifests itself in external pressures toward e.g. "best practice" and the desire to mimic organisations that have achieved success. Considering that the benchmarks for organisational success are often defined similarly within an industry, further pressure exists toward legitimising organisational behaviour against similar, rather than divergent criteria, across organisations in the same industry.[708] In this regard Blackler[709] remarks that, while in practice organisational action seldom follows the ideal of rational or scientific behaviour, pressure to justify behaviour in acceptable terms often translates into rational forms of justification. In mainstream management the pressure toward homogenisation is not unbiased toward any form of justification criteria, but is structurally determined by education and training biased toward the scientisation of knowledge.[710] At the same time, it is reinforced in managerial thinking toward

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[704] Beamish, N.G. and Armistead, C. G. 2001: 104

[705] This comment draws on criticism of pluralism in the context of societal politics e.g. Manley, J.F. 1983, and in the context of managerial politics e.g. Willmot, H. 1987

[706] This draws on comments by Yanow as discussed in Chapter 3

[707] Glynn, M.A., Barr, P.S. and Dacin, M.S. 2000

[708] Glynn, M.A., Barr, P.S. and Dacin, M.S. 2000: 730

[709] Blackler, F. 1993: 865

[710] Yanow, D. 2004: S11ff.

knowledge as a commodity,[711] and "scientific" methods as both the means to legitimise knowledge and to resolve conflict between differing forms of institutional knowledge.[712]

Given the former, pressures toward homogenisation of knowledge, as well as the continual reinforcement of the objective context of justification in general managerial practice, pose a fundamental practical challenge to the theoretical legitimacy pluralism affords to different justification contexts. Of importance here is that these pressures manifest in organisational praxis, which reinforces the peripheral nature of justification practices that do not conform to subjective justification frameworks. Brown and Duguid[713] for example draw attention to the ways in which organisations identify certain functions in the organisation with the creation of knowledge, and relegate others to the performance of routine work. This practice often reflects what is considered expert work, i.e. work that is underpinned by formal education and training in scientific methods.[714] The structural underpinning of such privilege, combined with the reinforcement of this through bias in organisational subjective knowledge, serves to create an imbalance between different contexts of justification at the level of institutional knowledge. Following from this, it is possible to argue that the conflict that Tell perceives between different forms of institutional knowledge will be characterised by an unequal distribution of influence. Furthermore it is unlikely to be mediated by an organisational framework of justification that allows the same ease of relating action to overarching organisational objectives for all forms of institutional knowledge.

4.7.2   Separation of reason and action

As a practice based theory of knowledge, Tell's separation of reason and action, as representing two distinct processes of justification, can be considered problematic. This argument draws on the observations of Nicolini *et al*[715] who emphasise that, in practice-based perspectives knowledge is always acquired in action. In this sense, there is no distinction between mind and

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[711] Compare Carter, C. and Scarbrough, H. 2001: 211

[712] In an article entitled "*How big data brings marketing and finance together*" Nichols, W. 2014 for example writes: "Analytics has exposed organizational anachronisms such as adversarial marketing-finance relationships and a focus on traditional year-long planning (instead of constant optimization) in marketing groups little changed for decades . . . In effect, analytics creates a common language between marketing and finance for the first time"

[713] Brown, J.S. and Duguid, P. 2001: 208

[714] Yanow, D. 2004: S19: "Examining these characteristics in light of the theoretical distinctions between local and expert knowledge, against the backdrop of other work practices such as participatory design, planning and policy analysis, suggest that the source of the problem of disparagement/denigration may be located, at least in part, in the politics of 'expertise' and of science."

[715] Nicolini, D. Gherardi, S. and Yanow, D. 2003: chapter 1

action as knowing is situated "*not in the mind of the individual but in a social subject, a subject that **simultaneously** thinks, learns, works, and innovates.*"[716] Tsoukas and Yanow explain how, from a phenomenological point of view, cognition is not the mere application of reason, but rather is embedded in activity.[717] When practice is foregrounded, it follows that knowledge is created through "*being and acting*", and not from cognition isolated from participation. In this sense, meaning unfolds as knowing subjects engage with the world. It is only through this engagement with the world that knowing subjects come to understand the world, and resulting from this explicit thought may be formulated.[718] In practice-based theory the former is expressed in the argument that knowing always precedes knowledge.[719]

To some extent Tell acknowledges the above in his argument that *". . . a logic of consequence (i.e. justification by procedure) may be thought of as only a subcategory of a general 'logic of appropriateness' (i.e. justification by performance).*"[720] However, Tell maintains that it is important to retain the distinction, from an epistemological point of view, in order to understand the differences between tacit and explicit knowledge. This latter position opens Tell's approach up to Tsoukas' general critique of typologies of knowledge. In this regard Tsoukas[721] argues that typologies, by virtue of treating concepts as classifiable, assume "*phenomena to be discrete, separate and stable*."[722] For Tsoukas, this assumption results in artificial distinctions that fail to recognise the mutually constituted nature of, for example knowledge types. Here Tsoukas refers specifically to the common distinction drawn in KM between tacit and explicit knowledge, creating the impression that two different types of knowledge exist. Instead, Tsoukas argues that tacit knowledge is inherent to all forms of knowledge, and that the essence of Polanyi's contribution to an understanding of knowledge was his proposal for a "common structure" to all knowledge which could overcome dichotomous conceptualisations of knowledge.[723] While Tell acknowledges the latter in his

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[716] Nicolini, D. Gherardi, S. and Yanow, D. 2003: 22. **Emphasis added**

[717] Tsoukas, H. and Yanow, D. 2009: 1347

[718] Tsoukas H. and Yanow, D. 2009: 1349

[719] Nicolini, D. Gherardi, S. and Yanow, D. 2003: 03: "This approach assumes that knowing precedes knowledge, both logically and chronologically, for the latter is always an institutionalized version of the former. . . . knowledge is thus acquired through some form of participation, and it is continually reproduced and negotiated; that is, it always dynamic and provisional."

[720] Tell, F. 2004:451

[721] Tsoukas, H. 2005: 111-112

[722] Tsoukas, H. 2005: 112

[723] Tsoukas, H. 2005: 160 - 161

description of personal knowledge as "*all explicit articulated knowledge also involves a tacit component*,"[724] his treatment of the justification context of personal knowledge, as distinct from that of other knowledge types, combined with his focus on describing personal knowledge in terms of that which is intangible, rather than persistently present in all other types of knowledge, arguably opens his proposal up to the critique Tsoukas levels at typologies in general. Following authors such as Brown and Duguid[725] and Tsoukas' argument on tacit knowledge, there is no justification context which exists that can be separated from tacit knowing and consequently from action. In this regard Tsoukas explains the role of personal judgement in all knowledge, arguing that that there are no cognitive tools, i.e. models, laws, or rules, that apply themselves. Instead all cognitive tools must be applied by humans who exercise personal judgement.[726] Exercising personal judgement, as acknowledged in Tell's context of justification, is a matter of action as encapsulated in the notion of skilful performance. [727] If all knowledge therefore is based on a common structure of tacit knowledge, and tacit knowledge can only be justified based on action, it is essentially not possible to argue that the justification context of personal knowledge is separable from other contexts of justification.

4.7.3   Relationships between justification contexts

As argued in section 4.2.3 of this chapter, a pluralist epistemology does not merely require the acknowledgement of multiple forms of knowledge, but equally needs to concern itself with the relationships between different forms of knowledge. Following Blackler, one of the core requirements of pluralism is to move beyond dichotomies, and instead propose multi-dimensional processes that characterise the relationship between different ways of knowing.[728] While Tell's conceptualisation of the dynamics of organisational knowledge focusses on how justification contexts manifest themselves in different processes, support or contradict each other or transform knowledge types, outside of his conceptualisation of the interaction of subjective and institutional knowledge, there is not a strong sense of how the contexts interrelate with each other. Rather, given Tell's focus on how knowledge types transform through applying different justification criteria, there is a much stronger focus on how each

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[724] Tell, F. 2004: 454

[725] Brown, J.S. and Duguid, P. 2001: 203

[726] Tsoukas, H. 2005: 160 - 162

[727] Also see Tsoukas, H. 2005: 161

[728] Blackler, F. 1995: 1035

justification context relates individually to organisational practice, but not how they interact as an integrated whole. As such, his proposal creates clarity on the distinct grounds represented in certain forms of practice, but not on the complex interactions that presumably characterise justification in an organisational context.[729]

Blackler's use of activity theory illustrates how acknowledging different concepts of knowledge can be maintained, without focussing on the distinctions between knowledge. Here, the requirements of the type of multi-dimensional processes that may be of concern in establishing a framework which will incorporate rather than separate different justification contexts, are of particular interest. As a starting point, both activity theory and Tell's proposal share the intent to locate knowledge in the practice of organisations.[730,731] While in Tell's proposal the former is an acknowledgement of different ways of knowing, which involve different grounds of justification, Blackler emphasises that different forms of knowing should be analysed as "*the dynamics of the systems through which knowing is accomplished*."[732] The conceptualisation of an activity system draws on the relationships between knowing subjects, social community and activities on the one hand, while on the other positioning these relationships as further mediated by language and technology, rules and roles. In the resulting system, knowledge "*permeates the relations*,"[733] and as the dynamics in the system change, so does the knowledge.[734]

At the risk of oversimplification of how justification can be conceived of as an activity system, consideration can be given to Alvesson's comments, that from a social constructionist perspective, the knowledge of KIFs[735] is validated, amongst others, through the relationships between these firms and their clients and in the management of these interactions.[736] From a justification point of view, the emphasis here therefore would move away from focussing mainly on the different grounds, to how justification evolves in the relationships that legitimate knowledge. This type of system arguably involves a much greater deal of complexity than Tell

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[729] This comments draws on Tsoukas' notion of organisational knowledge as complex (Tsoukas, H. 2005)

[730] Blackler, F. 1995: 1039 ". . . activity theory studies knowledge as something that [organisations] do"

[731] Tell, F. 2004: 447: "A translation of the pragmatic idea of language-games into social context of organizational action tells us that knowledge will reside in an ongoing practice"

[732] Blackler, F. 1995: 1039

[733] Blackler, F. 1995: 1038

[734] Blackler, F. 1995: 1037 - 1039

[735] Knowledge Intensive Firms

[736] Alvesson, M. 2001: 879

intends, and he largely acknowledges these shortcomings as areas for further research, remarking that some of the questions that remain unanswered concern "*procedures, measures and actions used,*"[737] as well as the actors, technologies and language involved.

4.8 Conclusion

Approaching knowledge from a practice-based and pluralist perspective, Tell takes specific issue with how this type of approach can be maintained without resorting to knowledge as being indistinguishable from action. He proposes that conceiving of knowledge as a language game, maintains a focus on practice, but simultaneously draws attention to the grounds which are implied when knowledge is used in language. For Tell, the centrality of action and practice in knowledge determines that justification is a distributed activity in the organisation, and as such his framework extends to all levels of the organisation. In addition, he argues that a generic understanding of these rules can be achieved by relating epistemological structures and processes of justification to forms of knowledge and organisational practices. This leads him to identify on the one hand, the structure of justification as external or internal, while on the other hand identifying processes of justification as relating to action or reason. The interaction of the structural and process dimensions is conceived of as four justification contexts, which can be understood as four sets of rules each referring to a different ideal type of knowledge. In this sense, knowledge belonging to a particular ideal type is identified as such, as it meets the rules for justification of this particular type of knowledge. To illustrate the ideal types, Tell focusses both on philosophical descriptions of this type of knowledge as well as the organisational application. Maintaining a pluralist framework, none of the ideal types are privileged, but rather the model legitimises all justification contexts as equal.

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[737] Tell, F. 2004: 465

Chapter 5

Justification as complex practice

5.1   Viewing organisations through the lens of knowledge

Practice-based theory's redefinition of epistemology in the context of organisations shifts the emphasis of managing organisations to a perspective that affords primacy to knowledge as a means to understanding organisations, and through this guide their activities and strategy.[738] While knowledge creation in this view becomes a central concern of organisational competitiveness, it similarly affords pre-eminence to the role that knowledge plays in the ongoing activities of organisational members. The latter is evident in the arguments of authors such as Knorr Cetina, that the nature of work in the KS is fundamentally characterised by epistemisation.[739] From a practice-based point of view this implies that the activities of organisational members focus increasingly on using and constructing knowledge. Given the epistemisation of work, a central implication for organisational action is that decisions are made concerning the acceptability of knowledge in a particular context. This notion is reinforced in Tell's observation that knowledge is distributed in the practice of organisations and as such decisions on the validity of knowledge permeate all organisational action.[740] In similar vein, von Krogh argues that justification is a constant activity of organisations and that knowledge creation cannot be understood without an understanding of justification processes.[741] While both authors emphasise the ongoing nature of justification, these theories also emphasize that decisions on the validity of knowledge involve both the strategic and everyday activities of organisations. In this sense, whether the outcome of a decision is the managerial approval of investment of scarce resources in newly created knowledge, or an evaluation of the ability of organisational members to follow the rules of a language game,

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[738] See chapter 2: 2.6.3

[739] See chapter 2: 2.6.3

[740] See chapter 4: 4.2.1

[741] See chapter 3: 3.4

organisational activities are characterised by constant decisions that legitimise or delegitimise ways of knowing.

If the embeddedness of knowledge construction and use in organisations is accepted as a characteristic of the KE, an understanding of organisations in this framework must therefore include a focus on the practices that result in the legitimisation of knowledge. It is with the former in mind that this research project set out with the objective of investigating the concept of justification as viewed from a practice-based perspective of organisational knowledge. In order to facilitate this, von Krogh's theory of managerial justification and Tell's theory of pluralist justification contexts were explored. The selection of these two theories was informed by the acknowledgement of the complexity of the knowledge construct, and the underlying argument, among practice-based KM theorists, that organisational knowledge must be understood as a multi-dimensional concept. With regards to the latter, this thesis has argued that the acceptance of a complex notion of knowledge has resulted in the redefinition of the justification concern in the context of organisations. Consequently, maintaining a definition that embraces the complexity of knowledge equally implies complexity in organisational justification.

If one accepts, as argued by von Krogh and Tell, that knowledge is based in practice, the idea of justification needs to remain open to how legitimation takes place in practice. This implies, from the outset, that justification cannot, from a practice-based perspective, *prescribe* how knowledge should be justified. Instead, a practice-based approach must remain receptive to an understanding that the justification concern amounts to more than the prescription of normative criteria that act as a delimitation of knowledge. This argument informs the first conclusion drawn from this thesis, namely that engagement with practice-based conceptualisations of justification draws attention to the limits of normativity, and specifically rationalist prescriptions, with regards to the justification of knowledge. The discussion of practice theory, however, also highlights the attractiveness of rationality and scientific procedures, resulting in the second conclusion derived in this thesis, that the unproblematic acceptance of objective knowledge is evident in attempts in the KE to mimic the perceived success of science and rationality.

The remainder of the conclusions drawn turn to the complexity of justification viewed from a practice perspective and informs five further arguments resulting from this research project. Firstly, it is argued that practice theory fundamentally challenges the idea that objectivity in decisions concerning knowledge is possible. Secondly, practice theory illustrates that

organisational justification cannot be conceived of as merely propositional, as it both draws on, and is reinforced by, action. Thirdly, the complexity of justification is reiterated by the paradox of contradictory justification contexts existing simultaneously in the organisation, and the difficulty of introducing contradictory justification practice to an organisation. The fourth conclusion that is drawn concerns the extent to which a practice-based understanding of justification affords a deeper analysis of the dynamics at play when organisations decide to reject knowledge claims. Finally, the argument is presented that the theoretical investigation into justification from a practice perspective represents a substantive challenge to the idea that "anything goes" when knowledge is viewed as action. Each of the foregoing conclusions are elaborated on below, and the thesis closes with some speculative remarks on the nature of organisational justification.

5.2   Limits and appeal of normative approaches

5.2.1   The limits of rationality and normativity

As argued in this thesis, a concern with the validity of knowledge in an organisational context shares with epistemology a concern with the conditions under which knowledge is considered justifiable. This can be viewed as a shared interest in how knowledge is distinguished from non-knowledge. In attempting to resolve this concern, an important point of divergence between practice and normative KM theory is the treatment of complexity.[742] An emphasis on justification as a normative concern reduces the complexity of organisational knowledge, and equally produces an argument that KM should concern itself with a monist concept of knowledge as *the* knowledge of value in the KE.[743] While from a philosophical point of view one can empathise with elements of the motivation underlying this argument, it equally has to be recognised that this approach has substantive implications for the discipline of KM. Drawing on the theories of von Krogh and Tell, as discussed in this thesis, the following section addresses three questions with regard to consequences of rationality and normativity in relation to organisational knowledge. Firstly, it is argued that practice-based approaches to justification bring into focus the consequences of an uncritical acceptance of rationality and realism as the "correct" normative approach to arriving at knowledge. Secondly, it is proposed that the philosophical ideal of universal rationality is unlikely to be found in practice. Finally, the normative approach's contention that the knowledge of concern in the KE, and therefore the

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[742] See chapter 2: 2.6.3.1
[743] See chapter 2: 2.6.3.2

role of justification, is narrowly focussed on explicated knowledge, is questioned in light of the importance of novelty and creativity, neither of which lends itself to normative justification processes.

5.2.1.1 Rationality, realism and critical attitudes toward knowledge

As far as the philosophical concern with the appropriate method of justification is concerned, the rationale for proposing normativity expressed for example, in the case of Firestone and McElroy,[744] a concern with regard to the abuse of power in the creation of knowledge. From this point of view, accepting knowledge as legitimised through the authority of organisational structures presents an inherent risk to the requirement for knowledge to be critically evaluated. Von Krogh's description of dominant logic, and the innate difficulty of influencing and changing established justification practices underscores the problematics of introducing alternatives, let alone criticism, to validation practice.[745] Moreover, as argued in this thesis, power and politics are likely to play a significant role in establishing and maintaining preference for certain processes, practices and criteria of organisational validation.[746] In practice, there are therefore no constraints on the possibility that justification reflects an unequal power distribution or the abuse of authority. Organisational knowledge ultimately is not required to be morally good or ethically correct. It is precisely this type of concern that leads Firestone and McElroy to adopt an argument *against* justificationism and for criticalism. By equating validation to a process of critical reflection, Firestone and McElroy attempt to position KCE as integral to ensuring that surviving knowledge claims serve interests beyond those of a select few. This is a concern that has value both at the level of the organisation and society. Organisational sustainability is arguably more likely if the justification of knowledge has its basis in more than just the authoritative preferences of its executives. Similarly, it is more likely to be of benefit to society if decisions about knowledge take a wider view of evaluation than immediate organisational concerns and benefits.[747] From this point of view, one can sympathise with Firestone and McElroy's intention to position KCE as an endeavour toward creating a more ethical society. However, it is questionable if a critical attitude to organisational knowledge claims necessarily has to be positioned in the realm of rationality and ontological realism.

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[744] See chapter 2: 2.6.1.2

[745] See chapter 3: 3.4.2 and 3.4.3

[746] See chapter 3: 3.6.1.3 and chapter 4: 4.7.1

[747] See chapter 1: 1.1

In relation to the above, von Krogh's conceptualisation of knowledge in the realm of constructivist ontology[748] would suggest that it is precisely the failure of organisations to recognise the constructed nature of reality that leads to a lack of reflection in decision-making concerning knowledge claims. When knowledge claims are accepted as unproblematically true, based on their perceived correspondence to an external reality, independent of human action, the "fact"-like nature of such claims does not invite critical reflection on how organisational knowledge and activities reinforce this reality. Moreover, in this instance claims that knowledge has been justified through its adherence to scientific methods, result in its acceptance precisely because scientific approaches are considered privileged above all other methods of creating knowledge. In this argument, prescription of the "correct way" of evaluating knowledge thereby introduces the risk that adherence to this "one correct way" in itself results in increasingly uncritical practice. One can therefore question if adopting a critical approach to the justification of knowledge in organisations can be achieved through unquestionably accepting the authority of realism, rationality and scientific procedures as *the* one better approach to creating knowledge.

5.2.1.2 The notion of universal rationality in practice

Also problematic in the normative approach is the reasonableness of assuming that the notion of universal rationality exists in practice. In essence, as proposed by Schreyögg and Geiger, this would require that knowledge is accepted based only on the force of the best argument.[749] Practice-based theory, however, suggests that contextless rational decision-making does not exist in the practice of knowledge creation. Rather, as illustrated in Tell's discussion of objective knowledge,[750] as well as criticism from the sociology of science and in the philosophy of Feyerabend,[751] the appearance of rationality in justifying knowledge in practice is *created* by the decontextualization of knowledge. Furthermore, it is through the process of rationalisation that justification is presented as a series of rational decisions.[752] The latter process, however, does not imply that rationality adheres to normative rationality, i.e. the force of the best argument, but rather that the ideal type of rationality is espoused in how the justification of knowledge is presented. In this context, if it is accepted that the process of

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[748] See chapter 3: 3.2.1

[749] See chapter 2: 2.6.3.2

[750] See chapter 4: 4.4.1

[751] See chapter 4: 4.3.4

[752] See chapter 4: footnote 529

justification is open to influence by non-rational criteria, it becomes problematic to understand how Habermas' notion of the "forceless force" of better argument enacts itself in practice, particularly if it is assumed, as is the case with Schreyögg and Geiger, that the criteria for the best argument are determined by practice.

5.2.1.3 Creating new knowledge and the regularity of justification

A further problem, with the reduction of organisationally valid knowledge to that which has been justified through rational means only, is the underlying assumption that the success of organisations in the KE is based on their ability to create objective knowledge. In this regard practice theory challenges the notion that any form of regularity can characterise the emergence of new knowledge, proposing instead that it is the unexpected and irrational that leads to the creation of truly new knowledge.[753] Tell's generalisation of personal knowledge here draws attention to the extent that knowledge creation takes place in a context of justification which defies explanation beyond what is achieved by knowledge. In this instance, it is the outcome, and not the procedure, which justifies knowledge, as the limits of the known are transgressed when true novelty emerges.[754] From this point, both the organisation and KM as a discipline, would fundamentally fail to consider the underlying dynamics of knowledge creation by limiting justification to the rational and explicated. Arguably, in the case of new knowledge, organisations that fail to develop an understanding of the role that the context of personal justification plays, by insisting on strict adherence to process and procedure, risk undermining the creation of novelty.[755] A related concern, for KM as a discipline, draws on the idea that the KE fundamentally changes work practice. In this context the discipline as a whole stands to lose a potentially vital outcome by not focussing on how knowledge is created through the interaction of various justification contexts, processes and activities, but instead focussing narrowly on how objective knowledge outcomes are produced.[756]

5.2.2 The attractiveness of rationality and scientific methods

While the ability of organisations to embed and encode knowledge plays an undeniable role in the KE, it is the *perception* of the process of creating such abstracted knowledge that is perhaps most interesting in relation to the validation practices of organisations. Here, Tell's elaboration on the justification context of objective knowledge is valuable in so far as it underscores the

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[753] See chapter 3: 3.6.1.4 and chapter 4: 4.3.4

[754] See chapter 4: 4.4.2

[755] See chapter 3 3.5.3

[756] See chapter 4. 4.6.1 and chapter 2.3.3.3

meta-level influence of positivism in formal training and education, and the resulting unproblematic acceptance of those knowledge claims drawing on the justification context of objective knowledge. Tell's argument, that the grounds for validation are reflective of accepted generalities, underscores the extent to which the privileging of objective knowledge is inherent in society at large. In this regard, justification aimed at the objectification of knowledge in organisations reflects not only local, but general beliefs in the "superiority" of certain methods of validation over others. These beliefs are reinforced in much of management literature, consulting practice and in the cross-organisational networks to which organisational members belong. Of particular importance in relation to justification is both the perception of the "truthfulness" of knowledge following from the "scientific method," and its pragmatic appeal.

5.2.2.1 The perception that scientific methods create universal truths

Arguably much of modern day organisational activities and management practices are focussed on replicating the scientific model of knowledge by attempting to distance knowledge from context and endow it with the appearance of universal truth and scientific method. Understanding how the privileged position of scientific knowledge relates to a particular context of justification draws attention to why attempts at the "scientisation" of organisational knowledge claims persist. In this regard, the authority with which the scientific method is regarded, combined with the mainstream acceptance of reality as existing independently of human action, results in a form of justification that is considered a universal method of knowledge creation.

At the same time growth in expert knowledge domains implies that, outside of the realm of a particular discipline, practices of validation are unlikely to be understood, resulting in the unproblematic acceptance of knowledge claims based on the general acceptance that the positivist tradition creates knowledge of more value and importance than competing forms of knowledge. Given the extent to which systems of expert knowledge are implicitly trusted, efforts to replicate the justification context of objective knowledge are arguably related to attempts to establish an equally unproblematic context for the acceptance of knowledge claims traditionally not associated with scientific methodologies. Here, the popularity of KM, as an extension of information management (IM), essentially establishes the justification of organisational knowledge through the standardisation of procedures that are designed to support knowledge claims, through reference to fact-like information existing as data. Where data is accepted as a representation of an external reality, the validity of knowledge is judged by its correspondence to the "facts" perceived to exist in this data. As argued in Chapter 2, this

paradigm in KM supports an unproblematic view of validation: knowledge is accepted as true, provided the data on which it is based is valid. The IM paradigm furthermore supports the notion of the unproblematic validity of knowledge claims, as it enables "scientific analysis" of data, which as a process emulates the scientific method of objective and detached discovery of "facts". In this notion of "unproblematic" justification, organisations in essence do not need to engage with questions concerning the legitimacy of knowledge as the reference to its basis, which draws on data that adheres to known analytical procedures, validates the knowledge as acceptable.

5.2.2.2 The pragmatic value of "scientific" justification

The appeal of the aforementioned justification context may well be pragmatic, as it creates the impression that the complexity of justification is reduced when all knowledge claims are required to be based on reference to the "facts" of data and recognised procedures for deriving such conclusions. These approaches reinforce the decontextualised nature of knowledge, as it is under these circumstances that organisations and KM theory alike neglect to acknowledge the contextual nature of knowledge creation and equally the situatedness of justification. From a practice-based perspective, it is however precisely this belief, that the justification of knowledge can take place in a detached and objective fashion, which is challenged by emphasizing the complexity of practice which influences the activities in organisations through which knowledge is created.

5.3   Complex justification: key issues raised

5.3.1   The centrality of subjectivity

Possibly one of the most important contributions from practice theory is the extent to which it questions the underlying assumptions of detached, objective decision-making about knowledge claims. This challenge exists both at the level of organisations and individuals and underscores the subjectivity of justification as always situated in contexts.

5.3.1.1 Organisational subjectivity

At the level of the organisation, established shared organisational frameworks form the basis for relating individual activities to overall organisational objectives. These frameworks, whether conceived of as a system of shared beliefs[757] or as the practices expressed through dominant logic[758], have as their core purpose the establishment of a justification framework

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[757] See chapter 4: 4.4.3

[758] See chapter 3: 3.4.2

that guides organisational activity. This framework, however, is not constituted in isolation of the context of the organisation, but is influenced by intersubjectively agreed purposes and goals of the organisation. As argued by Tell, the subjective justification framework does not originate in an externalist view of the characteristics of the organisation, as corresponding to an external reality, but rather in the beliefs originating internally to the organisation. In much the same way, von Krogh positions dominant logic as created from, and reinforced by, locally held preferences, resulting from a shared interpretation of experience and prior success. As the overarching framework for guiding justification practice, neither of these theoretical concepts support the idea that, organisationally, justification is an attempt to relate knowledge claims to an objective view of the organisation. Rather, justification is a process of attempting to relate practice to organisational beliefs, by reflecting on the reasons why practice coheres to the organisational ideology,[759] or by drawing on parallels between knowledge claims and criteria, which legitimise the existence of the organisation.[760] Furthermore, von Krogh's incorporation of constructionism in justification draws attention to the idea that, even if one acknowledges the existence of facts, this does not imply that they are objectively interpreted. Referencing the facts, in as much as they may exist as an external reality, is, in knowledge, always accompanied by interpretation by the knowing subject in the context of practice and the organisation.[761]

5.3.1.2 Individual subjectivity

At the level of the individual, von Krogh[762] emphasises the degree to which knowing subjects are situated in a particular context, and any interpretation which gives rise to knowledge claims is, necessarily, influenced by the subjective understanding of an individual. In relation to justification practices, individual subjectivity, however, also involves the individual's interpretation of justification contexts in a particular organisational milieu. As individuals situated in an organisational context, organisational members are part of a local "reality" of practices and policies, which prescribe the accepted ways of legitimising knowledge. Amongst others, von Krogh positions an individual's understanding of justification criteria as a potential barrier to explicating knowledge claims. At the individual level these barriers can be conceived of as subjectively held knowledge of legitimisation practices. This interpretation includes a subjective view of the elements of justification which are more likely to result in acceptance

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[759] See chapter 4: 4.4.3

[760] Se chapter 3: 3.4

[761] See chapter 3: 3.3.2

[762] See chapter 3: 3.5.3

and the consequences of deviation from these norms. In this sense, it reflects an interpretation of a justification context, i.e. its meaning in particular circumstances. It is therefore not just at the level of the organisation that the meaning of justification practices is derived and influence actions and outcomes, but also at the level of the individual.

5.3.2   Justification without explication

Organisationally justification practice exists as a phenomenon much broader than that which is explicated. Here both von Krogh's notion of the enactment of dominant logic,[763] and Tell's notion of the context of justification of personal knowledge,[764] draw attention to the importance of what is *not said* in relation to the validation practices of organisations.

5.3.2.1 Justification as practices of involvement

In the first instance one needs to consider that organisational justification includes organisational practices which are not explicated or consciously reflected on. Here, managerial justification theory emphasizes the idea that the organisationally accepted belief system becomes an unconscious process of acting without reflection. These unreflective actions reinforce the practices that result from organisational justification, particularly in relation to the conditions of involvement discussed in Chapter 3.[765] The ability to influence justification, at the level of strategic decisions, is therefore delimited by managerial practice, which underpins ideas of who in an organisation may engage in justification discourse. In this sense, the practice of excluding, purposefully or unintentionally, the views of non-managerial organisational members in justification discourse, is in itself an action that serves to delimit the nature of justification.

Exclusionary justification practices, however, do not only exist in the vertical organisational hierarchy, but also, as suggested by Brown and Duguid,[766] in the distinctions drawn between organisational functions with regards to knowledge work. These divisions, which in many instances are accepted as a "fact" of organisational structures, will likely also influence the perceived validity of justification contexts based on the organisational function from which they originate. Here one may hypothesize that, in relation to justification practice, this will affect not only the intended or unintended demarcation of certain departmental justification

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[763] See chapter 3: 3.4.2

[764] See chapter 4: 4.4.2

[765] See chapter 3: 3.4.2.2

[766] See chapter 4: 4.7.1

practices as less relevant to the overall dominant logic, but it will also limit the influence and access of managers representing those functional divisions to the overall justification discourse. In this instance, exclusionary practice will reflect and reinforce the unequal value placed on the knowledge represented by different functions in the organisation.

5.3.2.2 The tacit element in all justification practice

Tell's notion of personal knowledge, and the related idea that the basis for justification of personal knowledge cannot be explicated,[767] provides an important point of reference in considering arguments that justification practices in organisations are necessarily procedures dealing with explicated knowledge. If one accepts that knowledge creation in practice is far more complex than suggested by mainstream theories, and that knowledge in practice is ubiquitous in the activities of organisational members, there will always be, as argued by Tsoukas, an element of personal justification involved in all organisational knowledge.[768] Articulated reasons for justification, in this sense, are always an impartial reflection of justification, and an understanding of justification in organisations will therefore always be incomplete, as it is not possible to explicate and evaluate the context of personal justification beyond the capacity to act.

It is this lack of explicitness in the justification of personal knowledge, which underlies authors such as Schreyögg and Geiger's argument that tacit knowledge should not be considered as part of the knowledge that is important in the KE. This in turn stimulates the counter-debate that it is in particular tacit knowledge that is of importance.[769] However, moving beyond this debate, one needs to consider if the purpose of KM is simply to create theories that enable the functionalist management of knowledge as a commodity, or if, following authors such as Tsoukas and Spender, the purpose of KM is to provide an alternative framework for understanding organisations. In the case of the latter, knowledge is not just important in the context of what can be explicated and critically reflected on, but it is important as a means of understanding the practice that characterises organisations. From this point of view, whether one considers tacit knowledge as inherently important to the creation of knowledge objects or not, this is not the reason why KM concerns itself with tacit knowledge. Rather, if KM is an attempt at providing an alternative theory of organisations, and if personal knowledge is

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[767] See chapter 4: 4.4.2

[768] See chapter 4: 4.7.2

[769] See chapter 4: 4.6.1

ubiquitous in the practices of organisations, then it cannot be rejected merely because it does not meet traditional philosophical criteria of how knowledge should be justified.

5.3.3   Conflict and coherence as characteristics of justification praxis

The paradox of justification, which is described by von Krogh as the process through which conflicting knowledge claims have to be related to dominant logic,[770] can be viewed as the continual balance between conflict and conformance required to achieve novelty and to ensure that the organisation is not in a continual state of flux. While conflicting justification practices and criteria exist in managerial justification theory as an important means through which to drive the adoption of new knowledge, Tell's pluralist framework underscores conflicting justification contexts as a basic characteristic of organisations.[771] Organisations, however, do not exist in a constant state of conflict, and the notion of dominant logic and organisational belief systems draws attention to the ongoing processes of relating and reflecting organisational behaviour to an overarching framework.[772] Furthermore, selected authors included in this research project draw attention to the importance of coherence, not only for the internal functioning of the organisation, but also for the holistic functioning of the KE.

As discussed in Chapters 3 and 4, sources of conflict and variety in justification practices are multiple, and may originate through internal processes and interests, and through the broader context in which the organisation and its members are situated. In managerial justification theory the creation of new knowledge necessarily represents the potential for conflict with accepted knowledge. In this sense justification processes and procedures accepted as "true" are challenged by new approaches and practices. Conflicting justification contexts, however, also originate with the acknowledgement that organisational members can simultaneously draw on divergent structures and process of justification, while different forms of institutional knowledge exacerbate the proliferation of justification procedures and points of external reference between organisational members belonging to different professions.

As conflicting contexts of justification can simultaneously be viewed as enabling and constraining, the management of conflict therefore needs to harness the potential for creativity that stems from productive conflict, while limiting the potential for destructive practices to characterise such conflicts. The above-mentioned process of co-ordination is further

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[770] See chapter 3: 3.2.1

[771] See chapter 4: 4.4.4

[772] See chapter 3: 3.4.2 and 3.4.2.1; chapter 4: 4.4.3

complicated by acknowledgement that practice exists at an inter-organisational level. Networks of practice therefore act as an important source of new principles for justification that may originate outside of organisational boundaries.[773] The characteristics of subjective organisational knowledge, and dominant logic in organisational justification practices, however, act to regulate attempts at introducing new justification criteria in the local context. In both instances, justification criteria will ultimately have to cohere with the broader organisational intention.

While from an autopoietic point of view von Krogh's justification theory particularly draws attention to the difficulty of attempting to introduce new justification principles to an embedded dominant logic, inter-organisational practice can create pressure toward the adoption of justification practices that do not originate locally. However, both von Krogh and Tell's theories underscore that such justification practices will still have to be related to a locally determined framework. Particularly in the case of managerial justification, attention is drawn to the extent that organisations will accept justification more readily if there is a clear and direct alignment with the organisation's existing dominant logic. This ability to align the justification of knowledge claims to a notion of shared interests arguably represents a salient characteristic of commercial activity aimed at selling codified, embedded and expert knowledge in the KE. The dissemination of knowledge services and technologies throughout organisations in the KE is therefore at least in part dependent on the ability of vendors to establish alignment with the justification criteria internal to organisations.

5.3.4   Rejecting knowledge claims

As argued by von Krogh, justification does not only concern knowledge that is accepted, but also that which is rejected.[774] Understanding, rather than prescribing, justification arguably provides a stronger basis from which to conceptualise the organisational rejection of seemingly "valid" knowledge claims. While from a normative point of view one would argue that it is the failure of organisations to follow rational procedure that results in such rejection, practice theory underscores how attempts at understanding this rejection would originate in the justification practices of the organisation, as well as the difficulty of unseating and changing these practices. Here, von Krogh's notion of dominant logic, reinforced through everyday

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[773] See chapter 3: 3.6.1.2 and chapter 4: 4.6.3
[774] See chapter 3: 3.4.1

practices, appears particularly valuable to conceptualise the dismissal of certain knowledge claims.

5.3.4.1 The role of managerial discourse and interest

In considering the rejection of knowledge claims, the procedures that characterise the reinforcement of dominant logic act as exclusionary to the extent that specific knowledge claims may never enter the managerial discourse. The former results from the unacceptability of certain arguments, as it fails to relate to images of knowledge that are prevalent in the dominant logic. While a weaker understanding of organisational boundaries suggests that knowledge may well be accepted as valid at lower levels of the organisation, the exclusionary nature of dominant logic acts as a barrier to the possibility that such challenges to accepted notions of knowledge are discussed at the level of management.

At a pragmatic level, if one considers that managers, in their functional capacity, act as the primary interface between their employees and the dominant managerial discourse, the ability of management to accept and relate alternative justification criteria to the dominant logic is of primary importance to the introduction of alternatives. Alternative justification criteria may therefore be rejected by individual managers, either as they themselves do not accept its validity, or alternatively as they fail to engage in the subversion required to introduce alternatives. The notion of interest, power plays and politics in establishing dominant logic sheds further light on how members of management may act in self-interest by purposefully supressing knowledge claims from lower levels in the organisation, and by rejecting the contexts from which their validity draws. Hence, if coherence to organisational beliefs is valued at all costs, as it protects the interest of a dominant coalition, knowledge claims which draw on alternative justification criteria may simply never be introduced to discussions.

5.3.5 Practice does not equate to "*anything goes*"

In Chapter 2 it was argued that, when approaching the problem of complex knowledge, authors proposing justification as a normative concept, amongst others draw on the critique that knowledge from a practice theory perspective is a vague and all-encompassing concept. However, the arguments presented in Chapters 3 and 4 of this thesis illustrate that, by considering the conceptualisation of justification in practice theory, the notion of knowledge is not open to any interpretation, but rather characterised by justification practices or contexts which distinguish between this concept and other organisational activities. The difference between these approaches and the normative concern, however, is that practice theory does not place the same emphasis on deploying justification in service of rationality.

5.3.5.1 Delimiting organisational knowledge in practice-based theory

In the first instance knowledge as a language game draws attention to the idea that in organisations, claims to knowledge refer to locally accepted rules for using the concept of knowledge. As a consequence, organisations do not refer to every opinion and belief in the organisation as knowledge, rather knowledge is associated with the grounds that validate certain claims or actions. For Tell, these grounds for validation reflect larger societal structures and processes that characterise different forms of knowledge. In this sense his proposal can therefore be viewed as an attempt to elucidate the meta-level rules of language games at a societal level and the local replication of such rules in the justification contexts used by organisations.

Secondly, from a strategic perspective, it is clear when considering von Krogh's view - organisations' ultimate commitment to knowledge follows from the allocation of scarce resources - claims to knowledge have to be justified in relation to organisational beliefs. Organisations ultimately do not invest resources in everything that is believed by their members, or every idea or opinion that is expressed. Instead, organisations internally determine practices and processes that guide their decisions on knowledge. That such processes and practices do not follow one type of universally generalizable approach, does not imply that what organisations create, in these locally determined justification processes, is not knowledge. It merely indicates that there is not a single universal approach to creating knowledge in organisations.

5.3.5.2 Expectations of rationality

In both Tell and von Krogh's arguments it is clear that organisations commit, in one way or another, to certain practices or claims as knowledge, and through this process distinguish these practices and claims from non-knowledge. These justification practices or contexts may not reflect a rational-realist expectation of justification, but here one may question why rational theorists appear to believe in the validity of rational procedures as if these represent in themselves an infallible truth? What is particularly interesting from the rationalist perspective is how the failure of normative rationality is persistently positioned in the realm of practice, rather than the failure of theory. As argued in chapter 4, where rational processes do not deliver on their expected benefits, it is not procedure that is questioned but the availability of information and cognitive skills. Similar undertones exist in the idea that power and authority interfere with the ability of organisations to adhere to rational justification processes. However,

to paraphrase Knorr Cetina: if practice suggests that the philosopher's ideal of normative rationality does not exist, why is this considered a shortcoming of practice and not of theory?

5.4   Conclusion

Engaging with the justification debate from a practice perspective draws attention to the complexity that governs the acceptance of knowledge in an organisational context. In much the same manner as knowledge in practice cannot be reduced to a single form, neither can the process of justification be described as consisting of a single approach that determines the only knowledge of importance in the KE. Drawing on the discussion in this thesis, one can therefore conceive of justification as an ongoing process of attempting to relate both practice and knowledge claims to what is accepted as knowledge by mimicking or changing the practices and rules that govern the acceptance of knowledge. This process will furthermore reflect, and be characterised by, duality in much the same manner as the practice view embraces the dual nature of knowledge as construct. Against this background, and the theoretical contributions from practice theory discussed in this thesis, one may speculate how such duality presents itself in the nature of organisational justification.

Organisationally, legitimisation will embrace both the conscious and unconscious acceptance of knowledge, as justification occurs both in instances where knowledge is accepted as unproblematically true and in instances where the acceptance of knowledge calls for conscious reflection on practice and in discourse. Importantly, the unreflective acceptance of knowledge will not only characterise individual legitimisation, but also organisational justification, as much of the ongoing activities of organisations draw on the unquestioned acceptance of established practices.

The acceptance of organisational knowledge will furthermore reflect preferences, inclusive of grounds, contexts and interests, which are both conflicting and conforming. Conflicting justification practices may originate from within the organisation, through conscious attempts to change, for example, what are considered to be failures in justification practice, or the idea that practices can improve and do not adhere to what is considered best practice. In this sense justification practices both reflect that which is local, i.e. internal reflection on stories of failed projects, and global, i.e. reflection that turns outward to what is considered best practice in an industry or discipline.

Simultaneously, the organisational impetus toward coherence will give rise to justification strategies purposefully aimed at illustrating the conformance between a particular set of

preferences and existing established preferences. As a conscious justification strategy, the emphasis here will be on highlighting that which coheres and on masking that which conflicts with current justification practices. The conflicting nature of justification preferences, however, implicitly characterises organisations and in this sense is not only an overt strategy to influence justification, but a basic property of organisations. Given the distributed nature of organisational knowledge, justification practices which conflict with that which is dominant will still exist. In this case, even in organisations which value creativity above method and procedure, there will always be the need for knowledge drawing on the context of objective justification, as is for example the case with finance departments where prescription and rules are not only characteristic of the discipline, but also a legal requirement.

Viewing justification practice as fundamental to the nature of work in the KE emphasises that legitimisation occurs both at the level of the individual and the organisation. As organisations come to rely on the expertise of knowledge workers, and in many instances translate this reliance into an unquestioned acceptance of the validity of individual knowledge, the process of justification takes place in the micro-practices that characterise the work of individual organisational members. In this sense, much justification practice may be conscious at the level of individuals and unconscious at the level of the organisation.

Individuals as socially situated will draw on personal interpretation of the meaning of justification contexts in the realm of a particular problem and related to a particular organisational framework. As the inter-organisational membership of individuals establishes an important connection between internal and external justification practices, the ability of organisational members to relate alternative validity claims to their own context will in itself become an important point of acceptance or rejection of knowledge. Here the interest and skills of the individual may well play a significant role in the transmittal of justification practice, as individuals will evaluate the implications of such practice to their own abilities and aspirations. In this instance one needs to consider that much of the knowledge in KE can be perceived as threatening, in particular where such knowledge is seen as exposing shortcomings in skills, or potentially resulting in the redundancy of certain skills. Where individual interests are perceived to be threatened by knowledge, it is highly unlikely that such knowledge will be evaluated in a positive light and individuals may actively attempt to not only insulate the organisation from the knowledge, but also to limit the possibility that this knowledge becomes organisationally accepted. While the individual worker may not possess the capability to prevent organisational legitimation, it is through the process of forming shared interest groups

that both workers and managers can act in self-, rather than organisational, interest against the adoption of new knowledge.

Reflection and change in justification practices may be brought about by both internal and external influences. In as much as the theory of managerial justification draws attention to conscious reflection on justification in the creation of new knowledge, external influences can lead to conscious reflection, both in instances of new and established knowledge. Organisations may be forced to reflect on justification practices when organisationally accepted knowledge fails in the broader context of society, as would be for example the case of failed innovations, which are likely to lead to scrutiny of the basis on which an innovation was organisationally accepted. In such instances, changes to justification practice may be drastic and involve the overhaul of previously accepted justification procedures. However, the nature of change may also be much more subtle, and occur over time, when elements of external legitimisation, which cohere with the organisational belief system, are incorporated in a fragmented fashion.

The nature of duality in organisational justification therefore suggests that, as a practice, it is both individual and organisational, drawing on contexts that are both local and global and reflecting preferences that are simultaneously conflicting and conforming. It furthermore is evident in organisational discourse and activity at both an operational and strategic level, involving practices where accepted knowledge is used and new knowledge is created. Change in justification practices can be brought about by internal or external influences and can be both sudden and subtle. As encompassing of practice, interests, actions and actors, occurring in a complex environment, justification practice is not a neat linear model of progression from knowledge claim to acceptance, but rather a mesh of interwoven influences reflecting the complexity of knowledge creation.

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