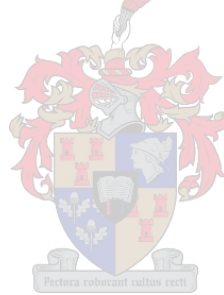


Sensemaking in Communities of Practice

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**Thesis presented in fulfilment of the requirements for the degree of
Master of Philosophy
(Information and Knowledge Management)**

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Declaration

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Date: 23 February 2009

Summary

This thesis explores the notion of *communities of practice*, and in particular how they make sense of their environment in order to create knowledge and enable learning. Traditionally communities of practice are viewed as stewards of expert knowledge, but this thesis argues that they are better understood as *sensemaking phenomena*.

Chapter one introduces the theory of sensemaking as developed by Karl Weick. This chapter introduces the seven properties of sensemaking. It also explores organisational sensemaking by taking the intersubjective and generic subjective levels of sensemaking into account.

Chapter two focuses on the literature on communities of practice as self-organising knowledge structures. Three structural aspects of communities of this kind are introduced, namely domain, community and practice. Following Etienne Wenger two additional aspects of communities of practice—namely meaning and identity—are analyzed as these provide the basis for a link to sensemaking theory. In the final part of this chapter the downside of communities of practice is reviewed as they do not only present opportunities but also unique challenges for organisations.

Chapter three combines the conclusions from the previous two chapters by interpreting communities of practice from a sensemaking perspective. The seven properties of sensemaking are applied to communities of practice and the role of meaning in communities of practice is viewed through the lens of sensemaking. Furthermore the role communities of practice might play in enhancing the phases of organisational sensemaking is indicated.

Chapter four concludes that communities of practice indeed function as sensemaking phenomena in their environments. It is argued that nurturing communities of practice as centres of sensemaking could be advantageous to organisations and recommendations are made on how to best achieve this.

Opsomming

Hierdie tesis ondersoek *communities of practice* en spesifiek hoe hulle sin maak van hulle omgewing om nuwe kennis te ontwikkel en organisatoriese leer te ondersteun. Normaalweg word *communities of practice* as die rentmeesters van spesialis-kennis gesien, maar hierdie tesis argumenteer dat hulle beter verstaan kan word as singewingsfenomene.

Hoofstuk een verduidelik singewingsteorie soos dit deur Karl Weick ontwikkel is. Die hoofstuk lei die sewe eienskappe van singewing in en ondersoek spesifiek ook *organisatoriese singewing* deur die intersubjektiewe en generies-subjektiewe vlakke van singewing in te sluit.

Communities of practice as self-organiserende kennis-strukture kom in hoofstuk twee onder die soeklig. Driestrukturele aspekte van hierdie gemeenskappe word bespreek, naamlik die domein, gemeenskap en praktyk. Etienne Wenger se twee addisionele aspekte—betekenis en identiteit—word geïnkorporeer in die analise, want dit verskaf ‘n brug tot singewingsteorie. In die laaste gedeelte van die hoofstuk word die probleme van *communities of practice* uiteengesit, want hulle bied organisasies nie net geleenthede nie, maar ook unieke uitdagings.

Hoofstuk drie kombineer die gevolgtrekkings van die vorige twee hoofstukke deur *communities of practice* vanuit ‘n singewingsperspektief te interpreteer. Die sewe eienskappe van singewing word op *communities of practice* toegepas en die rol van betekenis word vanuit ‘n singewingshoek benadruk. Verder word die rol wat *communities of practice* in die fases van die organisatoriese singewingsproses sou kon speel, uitgestippel.

Die tesis sluit af met ‘n opsommende gevolgtrekking dat *communities of practice* inderdaad as singewingsfenomene beskou kan word. Daar word geargumenteer dat dit tot die voordeel van organisasies is om *communities of practice* as singewingsentra te koester en aanbevelings word gemaak oor hoe ‘n organisasie daarmee moet omgaan.

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Introduction

The concept of *community of practice* has existed since ancient times, although the term was only coined by Lave and Wenger in 1991¹. Communities of practice are generally seen as stewards and incubators of specialised knowledge. They can be described as informally bounded groups of people who share expertise and a passion for a joint enterprise.² By meeting and interacting on a regular base they are able to deepen their knowledge. Communities of practice are informal, self-organising, social structures with flexible boundaries and are not bounded by a single organisation.

To cope with the complexity of the knowledge economy, organisations are required to manage knowledge as an asset. One way to do this is to give a central role to communities of practice in the creation and management of organisational knowledge. Communities of practice can contribute significantly in providing cutting edge knowledge and deploying, leveraging, and distributing it across the organisation. They are sources of innovation, new insights and ideas. Since they are flexible structures they are ideally positioned to deal with the dynamics of the knowledge economy

*Cultivating communities of practice in strategic areas is a practical way to manage knowledge as an asset, just as systematically as companies manage other critical assets.*³

With the knowledge explosion in the fields of science and technology, a paradox is created in that the complexity of knowledge requires greater collaboration and specialisation, but at the same time the shelf life of knowledge is decreasing. To keep up with the pace of change communities of practice are required to focus on the areas within organisations that are critical to growth and competitive advantage.

An additional challenge posed by the knowledge economy is that knowledge markets are globalising rapidly. Due to their flexible structure, communities of practice are ideally positioned to deal with the complexities of globalisation. By enabling the sharing of

¹ Lave J, Wenger E. 1991. *Situated Learning: Legitimate Peripheral Participation*

² Wenger E. 2000. *Communities of Practice: The Organizational Frontier*. 139

³ Wenger E, McDermott R, Snyder WM. 2002. *Cultivating Communities of Practice*. 6

knowledge across the globe communities of practice can make a significant contribution to the success of organisations in the global market.

Many firms are restructuring their relationships internally and externally. Internally organisations are dividing into smaller business units in order to remain agile and respond timeously to market opportunities. Externally collections of organisations are formed through partnerships with other companies in the context of their extended enterprise. All these relationships create and deliver value across a multitude of entities. Communities of practice link people from different business units, across different organisations, as well as globally. The result of these connections is that they bind the entire system together around core knowledge requirements.⁴

Communities of practice need regular contact to enable knowledge creation and learning. Some communities meet face-to-face whereas others meet virtually. Virtual or distributed communities are largely dependent on Information and Communication Technologies (ICT) and may have little or no face-to-face contact. Knowledge and experience is shared in communities in creative and unstructured ways that allow for the fostering of new knowledge.

Communities of practice, though informal, are a new kind of organisational structure. They differ significantly from business units, organisational teams, and networks and do not have hierarchical management structures or clearly defined roles and responsibilities.

To evolve to their optimal level of functioning, communities of practice have to be nurtured. In their book on the cultivation of communities of practice Wenger, McDermott and Snyder provide a comprehensive overview of the nurturing of communities of practice.⁵ Etienne Wenger⁶ is well known for his work on communities of practice even though he considers himself as more of a social learning theorist. Wenger co-authored the afore-mentioned studies on situated learning with Jean Lave and *Cultivation of Communities of Practice* with McDermott and Snyder. Wenger is also known for his book *Communities of Practice: learning, meaning and identity*, a theoretical analysis of communities of practice.⁷ Another important contribution to the literature on communities of practice is that by John Seely

⁴ Wenger E, McDermott R, Snyder WM. 6-7.

⁵ Wenger E, McDermott R, Snyder WM. *Cultivating Communities of Practice*. 2002.

⁶ "About Etienne Wenger": <http://www.ewenger.com/> as reviewed on 23 September 2008 at 16h15.

⁷ Wenger E. 1998.

Brown and Paul Duguid with the title *Organizational Learning and Communities-of-Practice: Toward a Unified View of Working, Learning, and Innovation*⁸

The purpose of this thesis is to respond to the question of whether communities of practice are merely centres of specialised knowledge or if they can be typified as sensemaking phenomena. It also has to be determined whether sensemaking is more prevalent in these communities than in traditional organisations. The focus will be on communities of practice that exist in and across organisations.

To answer the question the thesis will explore communities of practice through a sensemaking lens, drawing on the sensemaking theory as proposed by Karl E Weick⁹ in his 1995 publication *Sensemaking in Organizations*.¹⁰ Weick is acknowledged as a leader in the field of sensemaking and when the subject is addressed in literature there is normally reference to his work. To Weick sensemaking involves aspects such as the

*placement of items into frameworks, comprehending, redressing surprise, constructing meaning, interacting in pursuit of mutual understanding and patterning.*¹¹

Weick, Sutcliffe and Obstfeld, argue that sensemaking happens when the current state of the world is not what it is expected to be, or if there is no clear way to engage with the world. In their paper sensemaking is seen to involve

*...turning circumstances into a situation that is comprehended explicitly in words and that serves as a springboard into action.*¹²

⁸ Brown JS, Duguid P. 1991. In this paper the authors argue that the ways the people actually work differs from the way the work is described in manuals, training programs and job descriptions. In addition to that it is maintained that conventional job descriptions mask not only the ways people work, but also significant learning and innovation done in informal communities of practice in which they work. An ethnographic study of workplace practices is examined.

⁹ Karl Weick is the Rensis Lickert Professor of Organizational Behavior and Psychology at the Michigan University. <http://www.onepine.info/pweick.htm> viewed on 24 September 2008.

¹⁰ Weick KE. 1995.

¹¹ Weick KE. 1995 6.

¹² Weick KE, Sutcliffe KM, Obstfeld D. 2005. *Organizing and the Process of Sensemaking*. 409. This paper was written ten years after *Sensemaking in Organizations*, and it claims to reinstate sensemaking. The aim was to make it *more future oriented, more action oriented, more macro, more closely tied to organizing, meshed more boldly with identity, more visible, more behaviourally defined, less sedentary and backward looking, more infused with emotion and with issues of sensegiving and persuasion*.

Browning and Boudè compared Weick's view of the term sensemaking with that of Snowden¹³. They pointed out that the term *sensemaking* is a fusion of terms and a concept invented by Weick. *Sensemaking* is meant to be a notion that is so all-encompassing that

it deserves being distinguished as a new use about a new concept.

Snowden in turn uses the conventional term *sense-making* denoting the same family of ideas.¹⁴ He proposes the *Cynefin*¹⁵ model as a framework for sensemaking.

Dervin¹⁶ uses the term sense-making in the context of the use of information by humans and refers to it as

*a set of metatheoretic assumptions and propositions about the nature of information, the nature of human use of information, and the nature of human communication.*¹⁷

The approach followed in this thesis will be to firstly explore Weick's theory on sensemaking.¹⁸ The focus will be on the seven properties of sensemaking, aspects of organisational sensemaking, and vocabularies of sensemaking, whereby story-telling is included.

Secondly Communities of practice will be reviewed, starting with an overview of its constructivist origins. From a structural point of view the elements of *community*, *practice* and *domain* will be analysed as described by Wenger, McDermott and Snyder.¹⁹ Wenger in a more theoretical analysis of communities of practice²⁰ sees four necessary components of a

¹³ "About Dave Snowden": <http://www.cognitive-edge.com/files/David-Snowden.pdf>. Viewed on 28 September 2008.

¹⁴ Browning L, Boudès T. 2005. The use of narrative to understand and respond to complexity: A comparative analysis of the *Cynefin* and Weickian models. 33.

¹⁵ Snowden DJ, Kurtz CF. 2003. The new dynamics of strategy: Sense-making in a complex and complicated world. 462-483. The *Cynefin* model was developed by Kurtz and Snowden at the IBM Institute of Knowledge Management. They challenge three assumptions that people generally make: the assumption of order, the assumption of rational choice and the assumption of intent in decision support and strategy. The *Cynefin* framework is used to help people make sense of the complexities that arise in the relaxation of these assumptions. The framework is mostly used in group sense-making.

¹⁶ Brenda Dervin is a professor in the Department of Communication, Ohio State University, Columbus. <http://www3.interscience.wiley.com/journal/119293026/abstract?CRETRY=1&SRETRY=0>. Viewed on 28 September 2008. 10h30.

¹⁷ Dervin B. 1992. From the mind's eye of the user: the sense-making qualitative-quantitative methodology. 61-62.

¹⁸ Weick KE. 1995.

¹⁹ Wenger E, McDermott R, Snyder WM. 2002. 23-40.

²⁰ Wenger E. 1998b.

community of practice as meaning, community and identity. Communities of practice are informal structures and they differ from formal organisational structures such as business units, teams, and networks. These differences are all considered in the analysis of communities of practice. Distributed communities are progressively becoming the norm and their features will be investigated. Finally, a discussion on communities of practice would not be completed without reference to the downside of these phenomena.

From the insights developed through exploring sensemaking theory and communities of practice, an in-depth analysis will be done by interpreting communities of practice from a sensemaking point of view. The prevalence of the seven properties of sensemaking in these communities will be explored. Through the application of the theory of organisational sensemaking to communities of practice it will be determined whether they are similar to formal organisational structures in bridging between the intersubjective and the generic subjective levels of sensemaking. The role of story-telling in communities of practice will be highlighted, drawing on the work of Brown and Duguid²¹ in the context of an ethnographical study of Xerox service technicians. Sensemaking in communities of practice will also be discussed in the context of Tsoukas' three approaches to change within organisations²².

The role of Wenger's concept of the *negotiation of meaning*²³ will be reviewed to determine its relation to the sensemaking process as described by Weick²⁴. In addition to that, phases of sensemaking in communities of practice as proposed by Weick, Sutcliffe and Obstfeld in their model of enactment theory²⁵ will be examined in the context of communities of practice. The disorders of communities of practice are explored to determine its effects on the sensemaking opportunities in such a community.

The interpretation of the analysis done of communities of practice from a sensemaking perspective will indicate if communities of practice are indeed sensemaking phenomena. It will provide some insight on how Weick's sensemaking theory can be applied to communities of practice to the advantage of the organisations they belong to. In addition it will indicate how community members go about making their word sensible in the context of

²¹ Brown JS, Duguid P. 1991.

²² Tsoukas H. 2005. Afterword: why language matters in the analysis of organizational change. The three approaches to organisational change that are discussed in this paper are the behavioristic, cognitivistic and discursive approaches.

²³ Wenger E. 1998b.

²⁴ Weick KE. 1995.

²⁵ Weick KE, Sutcliffe KM, Obstfeld D. 2005. 413-414.

knowledge creation, learning and innovation. If the analysis proves that communities of practice can be seen as sensemaking hubs, it will be fair to argue that they are in the position to act as sensegivers to organisations.

The thesis will be concluded with recommendations on how organisations should go about communities of practice in order to enhance their sensemaking capacity and opportunities to advance knowledge creation in the organisation.

Chapter 1

Karl Weick on Sensemaking

1.1 Introduction

The term *sensemaking* is one that was developed by Karl Weick and he explains that it refers to the very process of the *making of sense*.²⁶ *Sensemaking* originates from Weick's highly regarded work on organisational theorising. He approaches *organising* from sophisticated perspective of systems theory using insights from music and literature. *Sensemaking* is one of the imaginative concepts coined by Weick, and it is widely used throughout organisation theory.²⁷ He argued that the process of organising should be the focus of organising theory. The process of organising being one of assembling

*ongoing interdependent actions into sensible sequences i.e. generate sensible outcomes.*²⁸

Weick sees organising as being an ongoing encounter with ambiguity, ambivalence, and equivocality. Organising is part of a larger endeavour to make sense of life and the world. Most of the field in organisation studies view *uncertainty* as a negative state to be eradicated before organising can take place. Weick in turn, embraces ambiguity and to him it is central to evolutionary processes. Even though organising is an attempt to deal with ambiguity, it never fully succeeds.²⁹

What does sensemaking consist of? A frame, a cue and a connection. For something to be meaningful all three concepts are required.³⁰ Frames are relatively large and lasting and can be conceived as

*Inherited vocabularies of society, organization, work, individual life projects, and tradition.*³¹

²⁶ Weick KE. 1995. *Sensemaking in Organizations*. 4.

²⁷ Czarniawska B. 2005. Karl Weick: Concepts, style and reflection. 268.

²⁸ Weick KE. 1979. *The Social Psychology of Organising*. 3.

²⁹ Czarniawska B. 2005. 271.

³⁰ Weick KE. 1995. 110.

³¹ Czarniawska B. 2005. 272.

In *Sensemaking in Organizations*³² Weick distinguishes seven properties of sensemaking: grounded in identity construction, retrospective, enactive of sensible environments, social, ongoing, focused on and by extracted cues and driven by plausibility rather than accuracy. This will be discussed in more detail in the following sections.

1.2 Understanding Sensemaking

Sensemaking is usually triggered by interruptions of events that people take for granted. They make sense of events by becoming aware of cues associated with the interruptions, and then actively categorising them into an internal frame of reference. Their frames of reference or mental models³³ enable them to grasp what is actually happening. This is then followed by processes of understanding, explaining, attribution, extrapolation, and prediction³⁴ until they can finally derive some meaning from the disruption.

Sensemaking is often confused with interpretation, but the two concepts are undoubtedly not synonymous in Weick's mind. He argues that, while interpretation is about discovering something which is already there, sensemaking involves the invention or construction of that which finally makes sense.³⁵ Interpretation is merely one of the components of sensemaking. To quote Weick:

*Sensemaking is about authoring as well as interpretation, creation as well as discovery.*³⁶

Leadership in organisations is not only about interpreting but actually about making sense by creating a different meaning, reformulating it and *giving sense*³⁷ to followers.

When an interruption occurs in the ongoing flow of events, cues are generated and people need to make sense of the cues associated with the interruption in order to reduce cognitive

³² Weick KE. 1995.

³³ Bogner WC, Barr PS. 2000. Making Sense in Hypercompetitive Environments. The authors describe frames of reference as cognitive frameworks.

³⁴ Starbuck WH, Milliken FJ. 1988. Cited by Weick KE. 1995. 51.

³⁵ Weick KE. 1995. 13-14.

³⁶ Weick KE. 1995. 8.

³⁷ Gioia DA, Chittipeddi K. Sensemaking and Sensegiving in Strategic Change Initiation. 442. *The process of attempting to influence the sensemaking and meaning construction of others toward a preferred re-definition of organizational reality.*

dissonance.³⁸ Sensemaking may result in action or in a decision of no action until more information is available.³⁹

One of the many ways in which sensemaking is described is that it involves an active process of making sense of ambiguous conditions by placing stimuli in a kind of framework.⁴⁰ Sensemaking necessitates acts of inventing or creating that which makes sense, it is not only about the understanding or discovery of the situation at hand.⁴¹

Weick attributes seven important properties to sensemaking that will be discussed in detail in the next section. He expresses the recipe of sensemaking as being:

*How can I know what I think until I see what I say?*⁴²

1.3 The Seven Properties of Sensemaking

In *Sensemaking in Organisations*⁴³ Weick consolidates the writings of various authors on sensemaking by articulating seven interrelated properties of the sensemaking process. Each property involves context and action and Weick places them in a crude sequence, which is summarised in the following:

*Sensemaking unfolds as a sequence in which people concerned with identity in the social context of other actors engage ongoing circumstances from which they extract cues and make plausible sense retrospectively, while enacting more or less order into those ongoing circumstances*⁴⁴

³⁸ Weick KE. 1995. 11. The focus of cognitive dissonance theory is on *postdecisional efforts to revise the meaning of decisions that have negative consequences*. When people choose between two nonoverlapping alternatives with different attractions they overlook the attractions of the nonchosen alternatives and gain the negative attributes of the chosen alternative. Once the choice had been made they feel uneasy and agitated (dissonance). In their need to reduce the dissonance they *spread* the alternatives and emphasise or enhance the positive features of the the chosen alternatives and in turn the negative features of the nonchosen alternative. This retrospectively changes the changes the meaning of the decision , the nature of the alternatives and the history of the decision. *People start with an outcome in hand...and then render that outcome sensible by constructing a plausible story that produced it.*

³⁹ Feldman MS. 1989. Cited by Weick KE. 1995. 5.

⁴⁰ Weick KE. 1995.1.

⁴¹ Weick KE. 1995. 13-14.

⁴² Weick KE. 1995. 18.

⁴³ Weick KE. 1995.

⁴⁴ Weick KE, Sutcliffe KM and Obstfeld D. 2005. Organizing and the Process of Sensemaking. 409.

1.3.1 Sensemaking is Grounded in identity Construction

Identity construction is pivotal to sensemaking and influences how all the other properties of the sensemaking process are understood.⁴⁵

*Sensemaking begins with a self-conscious sensemaker...*⁴⁶

Weick quotes Mead⁴⁷ when he says that a sensemaker is never singular, but rather a collection of different selves. Humans construct various selves or identities through their numerous interactions with other people. Selves are continuously redefined and adapted depending on different situations and interactions with other people. The development and ongoing modification of selves is essential to the understanding of the other properties of sensemaking.

Erez and Early⁴⁸ identified three self-derived needs that people aim at satisfying in their modification and transformation of selves: the need for *self-enhancement*, as reflected in the seeking and maintaining of a positive cognitive and affective state about the self; the *self-efficacy* motive, which is the desire to perceive oneself as competent and efficacious; and the need for *self-consistency*, which is the desire to sense and experience coherence and continuity.

Organisational identity can be described as being the foundation of the organisation and portrays the character of that organization. Our thoughts about who we are (identity) determines how we act and interpret, which influences what others think of us (image) and how they respond to us, which in turn threatens or confirms our identity.⁴⁹

The real or perceived image of an organisation has significant impact on its employee's self-concepts and definitions of who they are and how they make sense of their world. The lasting meaning is normally one where the aspects of self-enhancement, self-efficacy and self-consistency of self are affirmed and the organisational identity is perceived as favourable. A negative image is restored by association or disassociation with threats to images and identities. Identities are specifically threatened during periods of organisational change⁵⁰.

⁴⁵ Mills J H. 2003. Cited by Weick KE, Sutcliffe KM, Obstfeld D. 2005. 416.

⁴⁶ Weick KE. 1995. 22.

⁴⁷ Mead GH. 1934. Cited by Weick KE. 1995. 18.

⁴⁸ Erez M, Early PC. 1993. Cited by Weick KE. 1995. 20.

⁴⁹ Weick KE, Sutcliffe KM, Obstfeld D. 2005. 416.

⁵⁰ Thurlow A, Helms Mills J. 2007. Change, Talk and Sensemaking. At the heart of organisational change is the redefinition of identities in looking at "who we are" as an organisation. The authors argue that new identities take form and exist as they are put into language by individuals and organisations. They analysed a

This allows for an opportunity to repair the negative and verify the positive. The identity of an individual or organisation is not a fixed entity but rather a fluid one. It adjusts as people make sense thereof in the process of it being reflected back to them by others⁵¹.

Sensemaking is activated when negative images of the organisation put the three representations of self in jeopardy in such a way as to reconstruct the identity of the organisation. If this reconstruction is not successful employees may revert to other methods of mirroring their self-concept such as groups or movements that are not associated with the identity of the organisation.

Cooley⁵² introduced the concept of a *mirror self* where we observe ourselves as if looking in a mirror, and explore two aspects relating to our appearance. We observe our image in the mirror and after comparing it with what we would ideally like it to be, we then experience feelings of appreciation or disappointment. In this process we are actually also visualising how we are perceived by others. An additional aspect not depicted by the mirror metaphor is that we also imagine the effect of our image on other's thoughts. That triggers certain feelings in us. In other words, we are largely influenced by what we imagine others' judgement of us is. The more weight we attribute to another person the larger the impact of their impression of us on our self-feeling would be. We choose the self we deem most appropriate to the situation and the more selves we have access to, the more adaptable we can be, with less chance of being taken aback by a situation⁵³. The resultant self-feeling can trigger a small act of sensemaking that may have a large organisational impact.⁵⁴

Sensemaking processes influence transactions between employees due to the fact that each person acts with the intention of preserving a positive self-concept. If they fail in this endeavour of maintaining a favourable self-feeling, cognitive dissonance emerges and the sensemaking process is triggered once more and identity is adjusted. Through the transacting of individuals with one another, not only are individual identities shaped and reshaped, but in

case study of a regional health centre that was the result of a merger a decade before. This merger served as a "shock" to employees and in the sensemaking process identities had to be transformed. The biggest struggle for employees of the new merged hospital was to reconcile the internal reality of their workplace with the external perception thereof. The external identity of the hospital was that of a first-class tertiary care hospital. Internally though, employees had an experience of being divided, unhappy, and overworked in a hostile environment. A big challenge to management was to facilitate a consistency of identities and for employees to redefine their identities to align more closer to the external or public organisational identity.

⁵¹ Weick KE, Sutcliffe KM, Obstfeld D. 2005. 416.

⁵² Cooley CH. 1902. Cited by Weick KE. 1995. 21.

⁵³ Louis M. 1980. Cited by Weick KE. 1995. 24.

⁵⁴ Weick KE. 1995. 22.

addition the collective identity of the organisation is constructed and adjusted. Both the organisation and its members act on their environment, observe the consequences and respond to that. This self referential process allows for clarification and maintenance of identities.⁵⁵ Weick expresses this according to the sensemaking recipe: *How can I know who I am until I see what they do?*⁵⁶

1.3.2 Sense is only made in Retrospect

Weick's theory states that we only make sense of a situation in hindsight. He quotes Schulz's⁵⁷ analysis of "meaningful lived experience", which refers to the origin of the theory on the retrospectiveness of sensemaking. *Lived* is indicative of elapsed experience so everything we perceive is already history. This is true, even if it happened an only split second before we became aware of it - it is then already part of our memory.

Time exist both as a flow of experience or in discrete fragments thereof. Experience however, is seen in the context of time as singular, which is not true of *pure duration*⁵⁸, which is unbounded and continuous. What we experience are not separate marked incidents as the word *experiences* would indicate. Saying all of this, why then do we regard experience as distinct and separate episodes? Schutz explains that we step out of the flow of experience and then attend or focus on certain parts of it. We can only focus on something if it had already taken place and in doing so we become consciousness of experiences as apparent separate events. Hence the statement that meaning can only be derived by looking back from the here and now at experience that occurred in the past.⁵⁹ The directing of attention thus plays a vital role in the creation of meaning. Consequently, anything that influences our present situation will also impact our recollection of the past and how we make of sense of it. We are only

⁵⁵ Ring PS, Van de Ven AH. 1989. Cited by Weick KE. 1995. 22-23.

⁵⁶ Weick KE. 1995. 23.

⁵⁷ Schutz A. 1967. Cited by Weick KE. 1995. 24.

⁵⁸ Weick KE. 1995. 25.

⁵⁹ Paget MA. 1988. Cited by Weick KE, Sutcliffe KM, Obstfeld D. 2005. Organizing and the Process of Sensemaking. Paget explains the retrospective nature of medical work in the context of diagnostic mistakes. Diagnosis is an act, where the mistake only becomes known in the aftermath. Only once the event is in an advanced stage is it bracketed and labelled in the pure duration of experience and attended to as a potential problem or opportunity. Mistakes and diagnoses are therefore formulated in retrospect and are described as *complex cognitions of the experience of now and then*. Paget refers to the *too-lateness of human understanding* and writes that *the "now" of mistakes collides with the "then" of action with uncertain knowledge*. *Now* is about understanding action in retrospect and *then* more about the future, which is unknown to us.

really aware of sensory processes, and motor processes become conscious merely through causal sensory experience⁶⁰.

To explain how meanings are formed retrospectively, Weick uses the metaphor of a cone of light that shines backwards from the present onto the past and illuminates segments of earlier experience. Meaning is not just assigned to the experience being focused on, but is rather dependent on the *kind of attention* being directed at it, taking present emotions and activities into account.⁶¹

If we look at projects in the context of retrospective sensemaking, we find that there is equivocality at play due to the fact that people participate in more than one project simultaneously. The consequence of this is that there are various ways of making sense of something, or of combining meanings, and this happens in such a way that the sensemaker may become overwhelmed and confused. This equivocality can only be resolved by applying values, priorities and preferences in order to clarify what is most important in the passed experience and ultimately what sense could be made of it. The way people reconstruct memories of the past is so personal and subjective that there is no singular interpretation of elapsed experience.⁶²

A recollection of our lived experience does not necessarily provide us with a complete picture. We tend to construct a picture that is more determinate of the current outcome than it may have been originally. Therefore if the outcome is negative, it may incorrectly be attributed to a series of events like incorrect actions or decisions leading to the result in the present. The same applies to a positive outcome where elapsed experience is recalled in such a way that it implies that good analyses, perceptions or discussions, will produce good results. The past has therefore been reconstructed after the outcome became known and this influences accuracy because, according to Starbuck & Milliken⁶³, retrospective sensemaking eliminates some of the steps in the original causal cycle of events. Sensemaking in hindsight is however not completely inaccurate, this is due to the fact that the period between the event and recollection is often a fairly brief one. Retrospection at least make the past more clear than the present or future, and allows us to make sense until we feel there is enough order, clarity and rationality, which is why we seek to make sense in the first place.

⁶⁰ Mead H. 1956. Cited by Weick KE. 1995. 26.

⁶¹ Weick KE. 1995. 26.

⁶² Schutz A. 1967. Cited by Weick KE. 1995. 28.

⁶³ Starbuck WH, Milliken FJ. 1988. Cited by Weick KE. 1995. 28.

In conclusion Weick introduces the concept of *future perfect thinking*⁶⁴ and highlights that sensemaking can be extended beyond the present. He suggests that events that have not occurred yet may be placed in the past and then made sense of. In that way more of the past and future can be brought into the present.

1.3.3 Sensemaking is Enactive of Sensible Environments

This third property of sensemaking deals with the “making” or action part of that which had been sensed. Sensemaking presupposes action and this is apparent in the fact that we often need to say something before we know what we really think. In organisational life people are very much part of their environment, the environment is not a singular fixed entity that exists external to them. Our actions create and shape the very world that we are part of. That is what Weick means by enactment.⁶⁵

Weick stands largely on the shoulders of Follett⁶⁶ when explaining the role of enactment in sensemaking. The interaction between people and the environment is bi-directional and neither is fixed. We receive stimuli from the environment, act on it and that may alter the very environment, creating new stimuli. The fact is that we are part of the situation that produces the stimuli. We cannot control the environment; but we can make an impact upon it and in doing so affect our own actions. As we perform our activities we change our thoughts around it and that once again alters our responses. This applies to human relating as well. Follett describes:

*I never react to you, but you-plus-me; or to be more accurate, it is I-plus-your reacting to you-plus-me; “I” can never influence “you” because you have already influenced me; that is, by the very process of meeting, we both become something different. It begins even before we meet, in anticipation of the meeting.*⁶⁷

Resistance to change in organisations can actually be described as resistance to the environment. Follett suggests that we should rather talk about *confronting the activity of the environment* than change resistance. Interests ought to be confronted rather than resisted and conflicting interests integrated rather than contradicted.

⁶⁴ Weick KE. 1995. 28.

⁶⁵ Weick KE. 1995. 30-31.

⁶⁶ Follett MP. 1924. Cited by Weick KE. 1995. 32-33.

⁶⁷ Follett MP. 1924. *Creative Experience*. 62-63.

People cope with pure duration by interrupting their stream of experience and extracting part of it for categorisation. Weick refers to this as *bracketing* and *punctuation* and sees it as an important aspect of enactment.

Weick warns that students of sensemaking must be careful of two things in dealing with action as part of sensemaking.⁶⁸ Firstly they must realise that action is not simply about creating, and should therefore not only be associated with a simple response to a stimulus, evident behaviour or goal achievement. Action is more than mere visible behaviour and can influence meaning in various other ways. Through reflection or interpretation, action may for instance be postponed, interrupted or even terminated, and still create meaning. Even imagined action or action never initiated may be meaningful. Secondly Weick cautions against the dilemma of “*Cartesian anxiety*”⁶⁹. This has to do with the fact that some people find security in believing in the idea that the world is fixed and stable with a pregiven structure of information and knowledge. To them, the alternative to this absolute foundation is disintegration. This restricted view does not however, allow for the reality that our world is in flux and is constantly shaped by our actions and interactions. In addition to this Follett argues that if activities are confronted then

*actions, relationships, trust, faith, experience and presumptions are not only tools of sensemaking, but also of epistemology and ontology. They create that which they interpret.*⁷⁰

Weick criticises deconstructionists for not acknowledging the importance of faith and beliefs in the initiation of sensemaking⁷¹. He argues that if available meanings are eliminated through analysis, there seems to be no need for sensemaking. James makes the case with his question

*Is life worth living?*⁷²

In his answer he argues that you can justify either yes or no. If one acts according to the belief that life is not worth living, suicide would be the only conceivable option, whereas believing that life is worth living will provide actions that makes life worth the while. The

⁶⁸ Weick KE. 1995. 37-38.

⁶⁹ Varela FJ, Thompson E, Rosch E. 1991. Cited by Weick KE. 1995. 37.

⁷⁰ Follett MP. 1924. Cited by Weick KE. 1995. 38.

⁷¹ Weick KE. 1995. 38.

⁷² James W. 1885/1956. Cited by Weick KE. 1995. 38, 54.

issue on faith or the lack thereof, results in self-fulfilling action. Weick then concludes that faith is instrumental to sensemaking.

1.3.4 Sensemaking is a Social Activity

Sensemaking is never only an individual process, but is essentially a social one as well. The social nature of organisations is illustrated in this definition of Walsh and Ungson where they describe an organisation as

*a network of intersubjectively shared meanings that are sustained through the development and use of a common language and everyday social interaction.*⁷³

Our thoughts, feelings and behaviours are always dependent on others although we do not necessarily require their actual presence to make sense. The mere imagined or implied presence of others has an influence on our actions and interpretations. Blumer⁷⁴ refers to the phrase *symbolic interaction* (derived from the work of Mead⁷⁵) as the kind of social interaction that happens internally, in the physical absence of others.

Sensemaking never occurs in isolation of others, an audience is always present even if it is a presumed one as in the case of a monologue. Changes in the presumed audience result in modifications in the solitary symbolic interaction. The implied or real presence of others impacts our thoughts and behaviour and the actual actions of people depend on our sensemaking activities. Our intentions and purposes are fundamentally shaped by the actions and expectations of others. We may re-evaluate, change, revise or postpone our own goals, thoughts and behaviours, depending on what we deem suitable in the context of others and their actions.

At the heart of any social interaction in organisations lies communication. The conversations between people are largely influenced by symbols, promises, trust, expectations, memories, rumours, beliefs and appearances. Words provide a stable structure that people can understand and agree upon.⁷⁶

Social sensemaking however is not always about shared meanings and Czarniawska-Joerges argues that

⁷³ Walsh JP, Ungson GR. 1995. Cited by Weick KE. 1995. 38-39.

⁷⁴ Blumer H. 1969. Cited by Weick KE. 1995. 40.

⁷⁵ Mead GH. 1934. Cited by Weick KE. 1995. 41.

⁷⁶ Weick KE. 1995. 41.

*...shared meaning is not what is crucial for collective action, but rather it is the experience of the collective action that is shared.*⁷⁷

Blumer also cautions against a view that social sensemaking means shared meaning. He does not agree with the view that common values glue society together whereas conflicting values serves as a disruption. He recommends that society, and consequently organisations, are not seen as constructed of shared meanings but rather the fitting together of acts, which then becomes joined action. Acts may be orderly aligned to achieve common goals and reality is then, that social sensemaking is also about creating alignment and *workable relations*.⁷⁸

1.3.5 Sensemaking is Ongoing

*Flows are the constants of sensemaking*⁷⁹

and there is no clear beginning or ending to the making of sense. Sensemaking deals with mere moments in an ongoing flow of experience. When we attend to or bracket certain fragments of pure duration it seems that there is a clear start and end to the part that we are focussing on. We then extract certain cues from those parts, and create meaning from them. People are consequently seen to always be *in the middle of things*.⁸⁰ Our tendency to compartmentalise situations in our world ignores the dynamic and continuous flow of events and this leads to many misconceptions. One of the possible *things* that people are involved in are projects and they typically only notice information that is relevant to those projects.⁸¹

People become acutely aware of flows when these flows are interrupted. The interruption of a flow elicits an emotional response and that emotion has an impact on sensemaking.⁸²

⁷⁷ Weick KE. 1995. 42.

⁷⁸ Blumer H. 1969. Cited by Weick KE. 1995. 42-43.

⁷⁹ Weick KE. 1995. 42.

⁸⁰ Weick KE. 1995. 43.

⁸¹ Weick KE. 2004. How Projects lose their meaning: The Dynamics of Renewal. At times projects may be interrupted by the fact that people feel that it had gradually lost its sense and perhaps requires renewal. They may feel that they were thrown into something unexpected and will possibly ask themselves what the story is, and what they should do about it. They normally become less aware of projects over time but only until these projects start to break down. Projects make sense to people due to the fact that there may be resources informing them, which is some combination of: *social validation*, confirmation of important *identities* for that person, raw material that permits *retrospective* judgments of elapsed events, *cues* that enable diagnostic trial and error, updating that keeps pace with *ongoing* developments, *plausible* explanations for what is happening, and actions that *enact* events into recognisable forms. The loss of sensemaking components or resources may cause the loss of sense in the project. Weick suggests that people remain alert to these components throughout the project and repair each one immediately if it is not functioning optimally – the failure to renew one small component can have large effects on the behaviour of the other components.

⁸² Weick KE, Sutcliffe KM, Obstfeld D. 2005. 418. *The most important lost opportunity in the 1995 book "Sensemaking in Organizations" was fuller development of a theory of organisational sentiments. Such a theory was hinted at but ignored.* (Magala 1997). The authors also quote Elsbach (2002) who suggests a

Interruption of ongoing activity creates emotion and the physiological trigger for that emotion is arousal. Arousal is the result of a discharge in the central nervous system and it causes a psychological reaction, which triggers a rudimentary act of sensemaking. The awareness of arousal indicates that something has occurred that might pose a threat to one's well-being. Appropriate action is required to reduce the cognitive dissonance effected by the arousal.

The onset of arousal is gradual and it happens approximately two to three seconds after a disruption. This delay allows time for the appropriate action to be taken. The autonomic nervous system functions as a support system that is activated when there is a failure of direct action. Once an interruption has occurred people try and link it to similar earlier situations in order to make sense of the arousal they experience. In the state of arousal people tend to ask the question of *what's up?*⁸³

Emotions are triggered when there is a change in the environment caused by the interruption of an expectation. When an interruption occurs we tend to put in double the effort to complete the sequence of events that were interrupted. Emotion is a non-response activity⁸⁴ between the time of interruption and the point of elimination of the interruption, or of the completion of the sequence by an alternative reaction.

People capable of more substitute behaviours are normally less subject to intense emotions or emotional behaviour. The disruption of higher level plans causes less arousal than interruption of lower level ones. Interruptions in the organisational context create more emotion in situations where fixed plans and structures such as Standard Operating Procedures (SOP) are implemented. Areas with fewer plans are less prone to disruption.

When the organisational flow of events is disrupted unexpectedly and the disruption is deemed threatening, chances are that negative emotions will occur. The failure to remove or resolve the interruption can result in the intensifying of the negative emotion. Positive emotion on the other hand can be caused either by an interruption being removed unexpectedly, or an interruption accelerating the completion of plans.

In a relationship context, the sources of positive emotion may change over time. Partners need to have sufficient resources available to enable unexpected removal of disruptions and acceleration of plans. In addition to that the partners need to have shared aspirations and

further exploration of emotion and sensemaking in order to clear up whether intraorganisational institutions are best portrayed as cold cognitive scripts driven by rules, or hot emotional attitudes supported by values.

⁸³ Weick KE. 1995. 46.

⁸⁴ Weick KE. 1995. 48.

plans that each is unable to reach on their own. Positive emotion can only occur if new plans are added to the relationship. Once again it should be plans that partners can not realise on their own. The occasions for positive emotion in relationships decrease over time whereas the reverse is true for negative emotions. In organisational relationships the chances are higher of both positive and negative emotions occurring due to the fact that people do not know each other as well as in personal relationships.⁸⁵ The chances of unexpected interruptions are higher in the organisational world. People who are autonomous and less dependent on others seem to experience less emotionality in the organisational environment. Organisations tend to be more conducive of negative than positive emotions. The occasions for positive emotions related to interruptions are fairly scarce. This is due to the fact that people normally don't have much control over the onset and removal of interruptions. Adding to that, people also experience regular interruptions in their organisational life supporting a higher incidence of negative emotions. Lastly, plans are more likely to be slowed down rather than accelerated in the organisational environment. Weick describes different levels of positive and negative emotions that are experienced as a result of interruptions in organisational life. The longer people take to make sense of interruptions the higher the arousal and stronger the emotion:

*If the interruption slows the accomplishment of organized sequence, people are likely to experience anger. If the interruption has accelerated accomplishment, they are likely to experience pleasure. If people find that the interruption can be circumvented, they experience relief. If they find that the interruption has thwarted a high level plan, then the anger is likely to turn into rage, and if they find that the interruption has thwarted a minor behavioural sequence, then they are likely to feel irritated.*⁸⁶

Sensemaking is affected by these emotions because hindsight and retrospect tends to be mood congruent. People recall events similar to the current emotion they are feeling. The ongoing

⁸⁵ Weick KE, Sutcliffe KM, Obstfeld D. 2005. 418. The authors discuss the role of emotional experience in a situation of high task interdependence, and argue that as interdependent partners work together and share knowledge they gradually become more dependent on each other. They develop a higher expectancy of each other. Consequently the opportunities for the infringing of expectations and emotional experience increase. Once an expectancy of significance is interrupted, the partner starts to feel insecure and estranged. This may then result in an emotional outburst causing people to ask: *what did I do?* In the light of violated expectations, the authors suggest that the better question would be: *what did you expect?* People are held captive in these relationships due to their expectations of each other and the fact that these expectations can be violated. If the one partner in the relationship is impacted by an external negative event, it is difficult for the other person to stay calm and not react emotionally if they are closely related. This in turn may influence the first partner to fulfil what was expected from him in the first place. (Berscheid and Ammazalorso 2003) as cited by the authors of the article.

⁸⁶ Weick KE. 1995. 48.

nature of sensemaking is clearly evident in the fact that we recall events that resonates with our current emotional state. The fact that we make sense by using the recollection of a previous similar event where our current emotion was dominant complicates the sensemaking process.

1.3.6 Focused on and by Extracted Cues

*The “what” that I single out and embellish as the content of the thought is only a small portion of the utterance that becomes salient because of context and personal dispositions*⁸⁷

Although sensemaking is an ubiquitous process, it is often so swift that we may not be able to witness the actual sensemaking process itself. We tend to only see the result. To understand more about sensemaking Weick advises that we observe how people make sense of situations that extend the sensemaking process, such as dilemma’s and paradoxes.

Of specific importance is this sixth property of sensemaking which involves the

*ways people notice, extract cues and embellish that which they extract.*⁸⁸

The people consider the cues that they extract to be equal to the context from which the cues were obtained. Furthermore, these cues may highlight certain implications more noticeable than one would have detected from the original datum⁸⁹. Leadership by and large is about creating cues or points of reference from which organisational direction can emerge. The control over which cues are to be extracted can lead to a power struggle.

Weick uses the metaphor of *seed* to portray the unrestricted nature of sensemaking by means of extracted cues. For example, the production of a sentence is compared to the production of a plant from a seed. The production process of both is a chronological unfolding of something vague into a more definitive state. An intention, pointing to or containing its object, is associated with an acorn pointing to or containing an oak tree. The acorn does not contain a whole oak tree, but merely the specification of (only) an oak tree. From the acorn an oak tree will develop into some form (branches and leaves) that provides endless possibilities. Its development will happen within the context of its environment This metaphor is symbolic of the true nature of sensemaking.⁹⁰

⁸⁷ Weick KE. 1995. 62.

⁸⁸ Weick KE. 1995. 49.

⁸⁹ James W. 1890/1950. Cited by Weick KE. 1995. 49-50.

⁹⁰ Shotter J. 1983. Cited by Weick KE. 1995. 51.

In sensemaking the situation determines which cues are extracted and what they will develop into. It is done through the searching, noticing and scanning of the environment. The structure of the context is referred to as a frame and this establishes how cues will be translated into meaning.

Starbuck and Milliken distinguish between noticing and sensemaking. To them noticing is concerned with filtering, categorising and comparing. Sensemaking in contrast is responsible for the creation of meaning through interpretation of the extracted cues.

*Sensemaking focuses on subtleties and interdependencies whereas noticing picks up major events and gross trends.*⁹¹

Obviously we can only make sense of a situation once we actually notice events in our environment. Sensing is generally seen as more conscious and intentional than noticing.⁹² The events or information that we notice and interpret are usually unpleasant, deviant, extreme, intense unusual, sudden, brightly-lit, colourful, alone or sharply drawn.⁹³ This indicates the significance of the context from which cues are extracted and made sense of. Indexicality refers to how circumstances influence the meaning that is created from extracted cues. Without a context the equivocality of meanings will complicate sensemaking – several meanings are possible. Context determines which cues become salient. Both context and a social perspective are important in sensemaking. To focus on social context is to understand that this connects people to their actions for which some justification is required. Their explanations for their behaviours are subject to certain norms and social standards.

In a social context the role of politics cannot be underestimated. This is due to the fact that people make different sense of the same situation and the expression of this can result in political struggles.

The role of faith in the use of extracted and embellished cues and their prolonged use is of major importance. Cues join elements together on a cognitive level and this becomes substantial if people act as if these ties actually exist⁹⁴. If order is assumed, action needs to follow faith for it to become substantiated. For example

⁹¹ Weick KE. 1995. 52.

⁹² Starbuck WH, Milliken FJ. 1988. Cited by Weick KE. 1995. 51-52.

⁹³ Kiesler CA, Sproull L. 1982. Cited by Weick KE. 1995. 52.

⁹⁴ Weick KE. 1983. Cited by Weick KE. 1995. 54.

*if you are not happy act the happy man. Happiness comes later.*⁹⁵

The ability to act is highly dependent on extracted cues and therefore sensemaking processes are very lenient. Any cue or point of reference is sufficient because it creates the cognitive structure that enables enactment and creates a more formal order. This resembles the sequence of a self-fulfilling prophecy, where a cue is used as a prophecy of the kind of referent that it had been extracted from. Confident action as if the flexible referent is of the same nature as the cue, results in shaping the referent according to the prophecy. Often the prophecy is adjusted, which means that the cue, prophecy and referent are also altered according to the emerging image of the other. Taking this into account it seems that according to Weick *any old point of reference will do as a start.*⁹⁶

Managers tend to spend too much time on planning instead of acting and they should acknowledge enactment as the reason for success, rather than the planning that was done. Leaders need to take action and then notice the cues that were generated by that action to determine where they want to be and then keep acting on those cues. If action is taken in faith, sensemaking shapes the action in such a way that possibilities that were previously only imagined are attained - in other words, a self-fulfilling prophecy becoming true.

1.3.7 Sensemaking is driven by plausibility rather than accuracy

*The sensible need not be sensible, and therein lies the trouble...*⁹⁷

What Weick means by this is that there is a paradox related to the word *sense* in sensemaking. It assumes a realist ontology implying that there is something out there that needs to be accurately sensed and simultaneously an idealist ontology assuming that something in the environment needs to be constructed plausibly.

In sensemaking plausibility is of more importance than accuracy. Plausibility is about going beyond the obvious to generate enough ideas in order to ensure certainty rather than accuracy.⁹⁸ Starbuck and Milliken⁹⁹ apply this to executives in organisations and suggest that

*one thing an intelligent executive does not need is totally accurate perception.*¹⁰⁰

⁹⁵ Weick KE. 1995. 54.

⁹⁶ Weick KE. 1995. 54.

⁹⁷ Weick KE. 1995. 55.

⁹⁸ Isenberg DJ. 1986. Cited by Weick KE. 1995. 56.

⁹⁹ Starbuck WH, Milliken FJ. 1988. Cited by Weick KE. 1995. 56.

¹⁰⁰ Sutcliffe KM. 1994. Cited by Weick KE. 1995. 56.

Why is that? According to Sutcliffe inaccurate observations may, depending on circumstances, actually lead to positive outcomes. Inaccurate observations may be of value if it forces leaders to actively pursue goals they would not have attempted in circumstances that were more accurately perceived. Any map will do, as long as it brings about action.

Sensemaking is less about accuracy than about

*plausibility, pragmatics, coherence, reasonableness, creation, invention and instrumentality.*¹⁰¹

Furthermore people will not only believe that which relates to a sensory experience, but also what is exciting, fascinating, pleasant and goal related.

Weick raises various points to illustrate the secondary nature of accuracy in sensemaking¹⁰². He suggests that since people are often overwhelmed by information it is important to look how they distort and filter information to get rid of the *noise*. Therefore, in sensemaking it is essential to understand when and how people make use of filters and what they include and exclude from these filters.

We also make sense by embellishing the cues that we extract by linking them to ideas that are more generalised. What is of importance is that we start off with some interpretation and not delay action until an interpretation emerges. The fact is that we deal with multiple ideas, cues, interpretations and audiences which does not allow for accuracy. We may interpret cues by linking them to similar cues or interpretations of the past, but as we already know, our recollections of the past are not accurate.

*Thus accuracy is meaningless when used to describe a filtered sense of the present, linked with a reconstruction of the past that has been edited in hindsight.*¹⁰³

Project delivery and success in organisations are normally highly dependent on time. Hence the fact that, if there is a trade-off between speed and accuracy, speed will take precedence. Once again a plausible meaning will suffice, especially in dealing with an intricate set of cues. Using minimal cues to promptly categorise events in the environment and derive meaning from that, will ensure that projects continue. This will be advantageous in terms of

¹⁰¹ Weick KE. 1995. 57.

¹⁰² Weick KE. 1995. 57-61.

¹⁰³ Weick KE. 1995. 57.

cost, capacity and time. Another reason why accuracy is not such an issue in sensemaking is that it occurs in short intervals and is focused on specific questions.

The role that the *interpersonal*, *interactive* and *interdependent* play in organisations is a further reason why Weick argues that accuracy is not crucial in making sense. The motive for this relates to the fact that the criterion of accuracy makes more sense when object perception rather than interpersonal perception is studied. Object perception presupposes more constant stimuli than the equivocal cues associated with interpersonal perception. Unfortunately constant or fixed stimuli are not a reality in the real world. Because personal identities are flexible and numerous it creates a dilemma when accuracy studies are conducted from an object perception point of view. When executives try to analyse industry trends they tend to personalise their analysis to focus on something like *who is responsible for these market trends?* Due to the fact that people seem to translate questions that appear to lie in the domain of global accuracy and object perception into personalities and intentions, Weick reasons that in sensemaking, the interpersonal perception model is superior to the object perception model.

It is unusual for people to consider accuracy as a dominant part of sensemaking. However, if we counteract interruptions by means of beliefs in such a way that it enables the proceeding of projects, those beliefs are seen as accurate. Consequently accuracy is seen to be project specific and pragmatic, but a fixation on accuracy can impede action. The action required to execute a project provides a frame from within which cues are extracted and interpreted. This demarcates the area wherein accuracy is of importance. The collection of possible actions available to support the frame determines the cues that are noticed and made sense of, and those that are eliminated.

People see and find sensible those things they can do something about. ¹⁰⁴

What is believed as an outcome of an action is what makes sense. The concern is not with accuracy.

Accuracy is of lesser importance in sensemaking because it tends to have an immobilising effect on action. The filtering of cues often results in the elimination of those cues that prohibits forthright action. So when action is required, cues are simplified rather than embellished. Because we live in an ever-changing world, bold action is more adaptive than pointless deliberation about perceptions that can never be accurate in anyway. They cannot be

¹⁰⁴ Weick KE. 1995. 60.

accurate for the reason that as soon as we have observed and labelled them, they have already changed into something else and no longer exist. Bold action is adaptive in the way that it shapes what is emerging. Events are shaped according to the capabilities of the actor and now accuracy becomes reflexive. The closest one can come to perfect accuracy is when the actor, in appreciation of his or her capabilities, shapes the world to require exactly what he or she is capable of.

*People construct that which constructs them, except those construction turn out to be one and the same thing.*¹⁰⁵

People may be unaware of this dynamic but the result of its unfolding makes sense to them. Accuracy, which is automatic, drops out of the equation here.

Weick's final reason why accuracy is not important in sensemaking is that we never know in advance whether our perceptions will turn out to be accurate or not. Perceptions in this case are to some extent predictions which may change reality because, in Weick's words:

different predictions will lead to similar actions and, because similar perceptions may lead to different actions.

Only in retrospect will we know if our perceptions were erroneous.

If we say that accuracy is a nice-to-have in sensemaking, then what is necessary? Weick provides the answer to this:

*Something that preserves plausibility and coherence, something that is reasonable and memorable, something that embodies past experience and expectations, something that resonates with other people, something that can be reconstructed retrospectively but also can be used prospectively, something that captures both feeling and thought, something that allows for embellishment to fit current oddities, something that is fun to construct. In short, what is necessary in sensemaking is a good story.*¹⁰⁶

The link between stories and action is that stories join a group of disparate elements long enough for action to be shaped and performed. Stories are continuously redrafted and although we may develop better stories, we will never get *the* story. What is plausible to one

¹⁰⁵ Weick KE. 1995. 60.

¹⁰⁶ Weick KE. 1995. 60-61.

group of people, for example managers, may not be plausible to another, such as employees.¹⁰⁷

What is more helpful to sensemaking rather than accuracy is the symbolic images of metaphors, myths, fables, epics, paradigms and platitudes.¹⁰⁸ What is similar to all the symbolic trappings is that they all include a good story because they *explain* and *energise*. These two properties are of major importance in the search for plausibility, instead of accuracy in sensemaking.

1.4 Sensemaking in the Organisational World

Taking Weick's overview and properties of sensemaking into account, the question arises whether organisational sensemaking would be the same as everyday sensemaking? Weick answers this question by arguing that although they are similar, there are some obvious differences.¹⁰⁹

Organisational sensemaking involves the questions of how things become events to people, what those events mean, and what should be done about it. It is however not clear how this is applicable to organisations. Weick, Sutcliffe and Obstfeld maintain that sensemaking and organisation constitute each other.

*Organization is an attempt to order the intrinsic flux of human action, to channel it toward certain ends, to give it a particular shape, through generalizing and institutionalizing particular rules.*¹¹⁰

Czarniawska-Joerges suggests that in the world of organisations, much less is taken for granted than in everyday life. Organisational life is significantly more challenging, and opinions, thoughts and behaviours are continuously contested. Relationships and interactions are far more superficial and people behave in ways suitable to their office environment.¹¹¹

Weick argues that although there is no organisational theory directly related to the sensemaking paradigm, there are ways to think about organisations that acknowledges the centrality of sensemaking in the construction of an organisation and the environment it has to face.

¹⁰⁷ Weick KE, Sutcliffe KM, Obstfeld D. 2005. 415.

¹⁰⁸ Gagliardi P. 1990. Cited by Weick KE. 1995. 61.

¹⁰⁹ Weick KE. 1995. 63.

¹¹⁰ Weick KE, Sutcliffe KM, Obstfeld D. 2005. 410.

¹¹¹ Czarniawska-Joerges B. 1992. Cited by Weick KE. 1995. 63-64.

1.4.1 Organisations as Systems in a Complex Environment

Weick refers to Scott's¹¹² classification of organisations as three types or metaphors of systems, according to the looseness of elements and their openness to the environment. Scott firstly mentions organisations as *rational* systems, which are formally structured and driven by specific goals. The organisation as a *natural* system is one where activities are less structured and members share a common interest in the continued existence of the system. An *open* system in turn is seen as even more loosely coupled and informal. Goals are determined by negotiations between shifting interest groups and the functioning of the system is largely impacted by its environment. Weick concludes that organisations represented as open systems should be more susceptible to sensemaking than those where elements are firmly joined. The reason for this being that environments that are more open, with less structures and procedures undoubtedly lead to more ambiguity and sensemaking becomes vital. In attempting to reduce this ambiguity people then have to *invent* their own boundaries to determine what is included and excluded to their organisational system, and what they need to ensure the survival of the system.¹¹³

1.4.2 Levels of sensemaking in Organisations

Weick refers to Wiley¹¹⁴ for his distinction of three levels of sensemaking on a more macro level and positioned above the level of personal (intrasubjective) sensemaking. The level above the intrasubjective is defined as the intersubjective, which ascends into the generic subjective and the highest level it becomes the extrasubjective:

¹¹² Scott WR. 1987. Cited by Weick K. 1995. 69-70.

¹¹³ Weick KE. 1995. 70.

¹¹⁴ Wiley N. 1988. Cited by Weick KE. 1995.

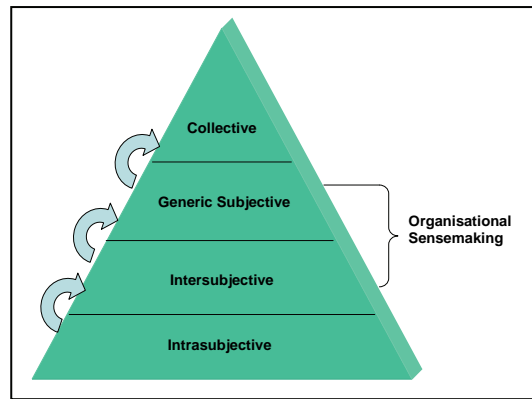


Figure 1.1 Levels of Organisational Sensemaking

Source: Compiled from Weick KE¹¹⁵

Intersubjective meaning is the result of intrasubjective thoughts, feelings and beliefs fused through interactive processes into a social reality where the “*I*” in conversations becomes “*We*”. In the process of this transformation and interpretation a new combined *intersubject* is generated. In Wiley’s words:

*Intersubjectivity is emergent upon the interchange and a synthesis of two, or more communicating selves.*¹¹⁶

Generic subjectivity entails a conceptual level superior to that of the intersubjective. It is the level of social structure where individual selves and subjects are replaced by a generic self. Wiley includes organisations on this level and the core of organisational sensemaking occurs through generic subjectivity. The abstract generic self is subject to rules and scripts¹¹⁷; they fulfil roles and are interchangeable selves rather than concrete bodies. In stable times sensemaking in organisations is predominantly made through the generic subjectivity and intersubjectivity does not play much of a role. In times of turbulence though, ambiguity is dealt with by a combination of the intersubjective and generic subjective. Sensemaking then centralises around intersubjectivity until new meanings are synthesised and new or modified scripts can be absorbed into generic subjectivity.¹¹⁸

¹¹⁵ Weick KE. 1995. 70-71.

¹¹⁶ Wiley N. 1988. Cited by Weick KE. 71.

¹¹⁷ Scripts are defined by Barley S. 1986. Cited by Weick KE. 1995. *as standard plots of types of encounters whose repetition constitute the setting’s order.*

¹¹⁸ Barley S. 1986. Cited by Weick KE. 1995. 69.

Extrasubjectivity is the third level of sensemaking and the one that Wiley refers to as a cultural realm.¹¹⁹ The extrasubjective is symbolic and devoid of any subject. Weick¹²⁰ uses the examples of capitalism and mathematics as representative of the symbolic reality of the extrasubjective. Weick compares the extrasubjective or cultural level to Barley's¹²¹ description of the institutional realm being a conceptual framework originating from preceding interactions. The generic subjectivity of scripts is of importance in that it links the institutional with the action domain.

Wiley does not link the organisation to one specific level of sensemaking and subsequently he concludes that organisational forms are the bridges between intersubjectivity and generic subjectivity. Intersubjectivity is associated with innovation resulting from close interactions between subjects, where generic subjectivity concerns controlling and guiding these interactions. The transition between the two social forms often results in a tension system that has to be closely managed to prevent organisations from getting trapped in either. The bridging process is therefore a cultivating environment for organisational sensemaking and is solely dependent on the quality of interactions¹²².

Weick sees interaction and conversation in organisations as vital to the sensemaking process.. The author Ralph Stacey places even more focus on relating between bodies in his theory on *complex responsive processes* in organisations and the subsequent creation of knowledge and meaning¹²³.

1.5 Ambiguity and Uncertainty in Sensemaking

Weick alludes to ambiguity and uncertainty as two typical occasions for sensemaking in organisations. Sensemaking occasions are normally preceded by some kind of a *shock*. Shock's are experienced when people reach a certain limit of dissatisfaction with their current situation and pay attention to a novel action in order to bring about circumstances that are more satisfactory.

¹¹⁹ Wiley N. 1988. Cited by Weick KE. 1995. 72.

¹²⁰ Weick KE. 1995. 72.

¹²¹ Barley S. 1986. Cited by Weick KE. 1995. 72.

¹²² Weick KE. 1995. 73.

¹²³ Stacey RD. 2001. *Complex Responsive Processes in Organizations*, 95. Stacey takes issue with the fact that (in his opinion) Weick focuses largely on individual sensemaking in the organisational context. Stacey includes both the individual and the social on the same ontological level.

1.5.1 Ambiguity

In the case of ambiguity the shock is *confusion*, the confusion being one of too many possible interpretations that are available simultaneously. Weick cites various authors with similar definitions of ambiguity. Literary ambiguity refers to confusion created by words or sentences with more than one interpretation, where experiential ambiguity implies stimuli that may take on more than one meaning or being unclear with regards to its meaning.¹²⁴ A lack of clarity, high complexity or paradox may also lead to confusion and consequently ambiguity. In this context a lack of clarity is explained as something *that seems obscure or indistinct and hard to decipher*. Highly complex in the light of ambiguity refers to

a plethora of elements and relationships that make it difficult to comprehend in a simple way.

Paradox from the perspective of ambiguity is understood as

*an argument that apparently derives contradictory conclusions by valid deduction from acceptable premises.*¹²⁵

It is concluded that ambiguity is a highly subjective experience and something is said to be ambiguous when it is unclear, highly complex or paradoxical.

From March's point of view ambiguity develops when reality is inconsistent or unclear, or there is a lack of causality or intentionality. Ambiguity also arises where situations cannot be coded into explicit categories. Identities can be ambiguous when they have vague or conflicting rules or possibilities for application. Outcomes can also be perceived as ambiguous in the case of their characteristics or consequences being unclear.¹²⁶ In the case of ambiguity more information may not solve the problem and rather create even more confusion.

People may well mistake equivocality for ambiguity with regards to confusion. Weick¹²⁷ maintains that although equivocality, like ambiguity, indicates that two or more interpretations are available as a condition for sensemaking, ambiguity also includes a lack of clarity. This lack of clarity makes it comparable with uncertainty.

¹²⁴ Levine DN. 1985. Cited by Weick KE. 1995. 92.

¹²⁵ Martin J. 1992. Cited by Weick KE. 1995. 92.

¹²⁶ March JG. 1994. Cited by Weick KE. 1995. 92.

¹²⁷ Weick KE. 1995. 95.

The problem with the word ambiguity is that it is in itself ambiguous. When seen as confusion created by several available meanings, social construction and invention is required. In the case of ambiguity being seen as ignorance created by insufficient information, more careful scanning and discovery is needed.

1.5.2 Uncertainty

In the case of uncertainty the shock attendant is one of *ignorance*. It comes from

*imprecision in estimates of future consequences conditional on present actions.*¹²⁸

Ignorance and imprecise extrapolations can therefore trigger sensemaking.

Uncertainty can be described as ignorance on the side of a person who has to make a choice about the future and the possible outcomes of certain actions. To remain operable his/her choices of actions are driven by beliefs about the future and the specific options available. In the person's mind the possible options are differentiated according to the beliefs they are linked to.¹²⁹ Variations of ignorance generated by the lines of actions being available, the strength and content of beliefs about the future and the information accessible about the possible actions can result in an occasion for sensemaking.

Some existing definitions of uncertainty indicate that uncertainty is located in one of three places: *state uncertainty*, where people do not understand how components of the environment are changing; *effect uncertainty*, what consequences the environmental changes will have in the organisation; *response uncertainty*, what response variety is available to them. People have a perceived inability to predict something accurately and therefore it is important to identify the locus of the uncertainty. Different skills are required to deal with these different locations of uncertainty.¹³⁰

Weick quotes Stinchcombe who suggests that in organisations the earliest information or *news* indicating how things may transpire reduces uncertainty and energises the organisation into more clarity about what direction to take. It is thus important for the organisation to be as close as possible to where and when the news breaks¹³¹. Weick however sees a retrospective problem definition here in terms of *knowing the direction to go* due to the receiving of news. He suggests that news may merely open up new possibilities or directions that were only

¹²⁸ March JG. 1994. Cited by Weick KE. 1995. 95.

¹²⁹ Burns T, Stalker GM. 1961. Cited by Weick KE. 1995. 95.

¹³⁰ Milliken FJ. 1990. Cited by Weick KE. 1995. 95.

¹³¹ Stinchcombe AL. 1990. Cited by Weick KE. 1995. 96.

vaguely thought of before. If news is seen as an outcome in the present, then people make plausible sense about how the news got there and that provides more certainty. This *how the news got there* helps organisations to think what to do next. Certainty is not stagnant though, it changes during the course of the decision making process. Uncertainty is reduced through the news that became available and the remaining uncertainty is then translated into risk. The risk is predominantly a presumption based on the value of the news that was collected.

*Occasions for sensemaking should vary as a function of how far into the future a line of action extends, the availability of news, the capability for scanning, the tolerance for risk, the design of the news collecting structure, and the ease of movements toward sources of news.*¹³²

Problems with sensemaking in an organisation cause large chunks of uncertainty to remain, which lead to them taking larger risks, which increases the chances of failure. This prediction stems from an organisation's sensemaking capabilities in the face of future uncertainty.

Uncertainty is not about too many interpretations, but rather about too few or in the view of some authors due to a lack of information.

There is then a difference in the kind occasions triggered by ambiguity and uncertainty. Ignorance can be moved by collecting more information whereas confusion requires multiple cues from face-to-face interactions. Confusion is resolved by ways of enabling debate, clarification and action rather than by the collection of more data or information. The difference then between uncertainty and confusion lies in the fact that the ability for communication in the one is enabling but it is an obstruction to the other.¹³³

1.6 Vocabularies of Sensemaking

Sensemaking is not only about a process of imagery, but also about what is being processed. This means that attention has to be paid to what is being said and what those words mean. Weick writes that to change a group, one has to change what they say. Therefore *words do matter*.¹³⁴

When words are joined together in sentences they convey something about our ongoing experiences, which results in sense being created. Words are central in the sensemaking

¹³² Weick KE. 1995. 97.

¹³³ Weick KE. 1995. 99.

¹³⁴ Weick KE. 1995. 106.

recipe where *we know what we think when we see what we say*. The saying that is produced, the categories imposed to see the saying, and the labels with which the conclusions are being retained, are all constrained by words.

Words firstly have a collective meaning and then an individual meaning. To focus their sensemaking, people draw from several different vocabularies. These vocabularies are ideologies, third-order controls, paradigms, theories of action, traditions, and stories.

Unfortunately words impose discrete labels on ongoing subject matter and consequently there is slippage between words and what they mean. So sensemaking never stops.

1.6.1 Minimal sensible structures

To construct roles and understand objects, people draw on some kind of frame within which cues are noticed, extracted and made sensible.

*Frames enable people to locate, perceive, identify and label occurrences in their lives and world*¹³⁵

How people make sense of their environments is tied to their frames, mental models or cognitive frameworks. These frames determine what people locate, perceive, identify and label in their world. Frames can be described as abstract representations of things or events which refer to cues, which are less abstract. Weick writes that it is a cue in a frame that makes sense, not the one or the other on its own. Therefore the substance of sensemaking starts with three elements being a cue, a frame and a connection.¹³⁶ One thing can only be meaningful if you have three: a thing, a relationship and another thing.

*The meaning of one of them is determined by your momentary awareness of the other two.*¹³⁷

It is irrelevant which of the three people start with. A meaningful definition of the present moment is only created once a present moment is linked or connected to a past moment of experience¹³⁸. The past moment usually plays a role in organisational sensemaking. The past moments of experience are the frames and the present moment the cues. A relation between them is meaning. This is where content plays a role – in the frames and categorisations of the past and the cues and labels of the present.

¹³⁵ Snow DA, Rochford EB, Worden SK & Benford RD. 1986. Cited by Weick, KE. 1995. 109.

¹³⁶ Weick KE. 1995. 109-110.

¹³⁷ Weick KE. 1995. 110.

¹³⁸ Upton A. 1961. Cited by Weick KE. 1995. 110.

Frames develop over time through people's experience, their interaction with others and vicarious learning. As people interact with their environment, they shape their frames of reference and use that to make sense of their future interactions. Frames determine which cues become more prominent and are noticed. These frames provide a structure of rules and relationships that influence the interpretation of cues that were noticed, and propose a suitable action for the person to take¹³⁹.

Weick highlights various vocabularies of organisational sensemaking that all describe present moments, past moments, or connections.

1.6.2 Ideology: Vocabularies of Society

Ideologies can be described as:

*a shared relatively coherent set of emotionally charged beliefs, values and norms that bind some people together and help them to make sense of their world.*¹⁴⁰

Ideologies join beliefs about cause-effect relations, preference for certain outcomes, and expectations of appropriate behaviours. This forms a foundation for people to make their situations understandable and meaningful. Ideologies structure the simplifications that people create from what they perceive. Sensemaking can be understood as an act of filtering and beliefs and norms are powerful filters.

The content sources of ideologies are multiple and are of extraorganisational origin, such as transnational cultures, national cultures, regional and community cultures, industry ideologies organisation sets, and occupational ideologies.

People select from the wide variety of ideological sources available to them and do not simply internalise those which they have access to. They also have different interpretations of the ideological content that is imperfectly transmitted to them during socialisation and resocialisation. The fact that meanings are likely to stabilise locally should manifest from the huge effort required to establish cross-functional teams, where they share a reasonable number of meanings between them.

Vigorous ideologies can serve as an alternative organisational structure when they elicit self-control and voluntary cooperation.

¹³⁹ Bogner WC, Barr PS. 2000. Making Sense in Hypercompetitive Environments, 213. The authors refer to frames as cognitive frameworks.

¹⁴⁰ Trice HM, Beyer JM. 1993. Cited by Weick KE. 1995. 112.

1.6.3 Third-order Controls: Vocabularies of Organisation

Organisations operate according to three types of controls. First-order control involves direct supervision, second-order control is supported by programs and routines, and third-order control or premise controls influence those premises that people use for diagnosing situations and making decisions.

Third-order controls are important to the process of sensemaking and their influences are often implicit, tacit, preconscious, mindless and taken for granted. Since premise controls are also core to decision-making, it joins sensemaking and decision-making. Premise control is a useful concept in that indicates unexpected sources of constraints in models of decision-making. In the case of non-routine organisational technologies premise control becomes more pervasive. Technology is such an important part of the organisation that it has to be taken into account when discussing sensemaking.

A decision premise is a supposition or proposition on which some argument or conclusion rests. Premise controls are close to emotionally charged beliefs¹⁴¹.

Both factual and value content are included in premise control. In the case of administrative decisions making, the necessity arises to continually choose factual premises of which the truth or falsehood is not certain and cannot be determine with confidence with the information and time available to reach a decision. In these instances decisions are then made on different grounds such as ideologies. Once the influences of these other grounds become stronger, there is more time pressure and more non-routine information. The *other grounds* are generally more simple and basic, and their influence is more difficult to express or change and is more pervasive.

Decision premise usually plays a role very early on in sensemaking and is a supposition made for people to be able to carry on with decision making. The reason for premise controls to be so powerful is because, in Weick's words, their early influence is

capable of colouring all subsequent steps.¹⁴²

Judgement and anything that controls it however, influences organisational sensemaking in the later stages of the decision-making process. Facts are replaced by values, computation by judgement and sensation by ideology. This may all happen without the conscious awareness of people and therefore premise controls are deemed unobtrusive.

¹⁴¹ Trice HM, Beyer JM. 1993. Cited by Weick KE. 1995. 114.

¹⁴² Weick KE. 1995. 115.

When premise controls are active the content used by people to make sense in the organisational world has a common implicit meaning. This is even more so when work is non-routine.

Premise controls are more important in the top levels of the organisational hierarchy where work is more non-routine. If work cannot be ordered and subdivided by first- and second order controls involving rules and standards, third-order controls are required to stabilise the work.

In the case of bottom-up control where everything in the lower levels of the organisation is structured and ordered by first- and second-order controls, it may result in a perplexing situation or environment. What is left for judgement then, are those parts which are most likely affected by deep decision premises of social class, ethnic origins, social networks or national culture, all which disregard order. Thus top management will have to make sense in circumstances of high ambiguity and arousal.

If however, bottom-up design involves third-order controls from the lowest level it may still have the effect of an incomprehensible situation for top management. It may even seem that there is then nothing left for top management to do. The way work is controlled in the lower levels of the organisation places a high demand for sensemaking on top management. When controlled work at lower levels create non-routine spin-offs higher up, interpretation and judgements are required and that is where premise and ideological controls come into play. The conclusion to all of this is that somewhere in the organisational hierarchy non-routine decision making will be influenced by ideological control.

Weick questions the necessity of a top management team, since the organisation literally and figuratively makes sense at the bottom. He argues that the best organisational design would be where there are less hierarchical levels and where all three controls are embedded in each level. Examples of this kind of structure are teams, lateral structures and dynamic networks. He also warns that

*organizational designs that attempt to cope with technology by means of different forms of control at different levels create problems for sensemaking.*¹⁴³

¹⁴³ Weick KE. 1995. 117.

1.6.4 Paradigms: Vocabularies of Work

A third way in which content is embodied in the organisation has to do with frames that take the form of paradigms. Like ideologies and premises, frames are also an

*internally consistent set of simplifying heuristics.*¹⁴⁴

Paradigms are different in the sense that they are more self-contained, can function as alternate realities, or as a subjective point of view, that determines a person's perceptions, imaginations and actions.

In the organisational world paradigms usually refer to standards and procedures, a shared understanding of the environment, and a joint agreement on the systems of power and authority. Paradigms are seen as collections of implicit assumptions about what sorts of things make up the world, how they behave and fit together, and how they become known.

Paradigms involve two qualities of sensemaking in organisations: its association with conflict and its inductive origins. Research that was done on the level of paradigm development across scientific fields¹⁴⁵ (physics, chemistry, biology, economics, psychology, sociology, political science) demonstrated that the degree of consensus on a paradigm varied across the different fields and departments associated with them. It was found that in departments where paradigms were more developed there was more consensus, more technological security, improved communication and less conflict within the department and its dealings with the administrative department.

Firestone¹⁴⁶ highlighted that paradigms are not broad approaches, but rather involve many small units of thought – smaller than what most people think. He also noted that images, illustrations and exemplars are important to the content of paradigms.

When thinking or agreeing on paradigms people think more about the existence of paradigms rather than its rules or rationalised form. It seems that these paradigms are more equivalent to culture than philosophical systems. The artefacts that symbolise culture and the transmission thereof are the examples associated with that paradigm. Discrete artefacts rather than coherent formulations are vehicles for conveying a paradigm and this is made compelling by social influence. Groups or collections of artefacts can be interpreted in different ways so it would be possible to reaccomplish the paradigm or culture somewhat differently.

¹⁴⁴ Martin J, Meyerson D. 1988. Cited by Weick KE. 1995. 118.

¹⁴⁵ Lodahl J, Gordon G. 1972. Cited by Weick KE. 1995. 118.

¹⁴⁶ Firestone WA. 1990. Cited by Weick KE. 1995. 120.

Weick concludes that paradigms (in the light of sensemaking) can be defined as

*sets of recurrent and quasi-standard illustrations that show how theories of action are applied conceptually, observationally, and instrumentally to representative organizational problems.*¹⁴⁷

A theory of action can hold together a set of stories or illustrations and that provides a frame wherein cues are noticed and interpreted.

1.6.5 Theories of Action: Vocabularies of Coping

Theories of action are the *cognitive structures* of organisations and they filter and interpret signals from the environment. These stimuli are then attached to responses. Hedberg¹⁴⁸ describes theories of action as

*metalevel systems that supervise the identification of stimuli and assembling of responses.*¹⁴⁹

An important characteristic of theories of action is the fact that they build on the stimulus-response (S-R) paradigm. Knowledge is built in the organisation by the responses of people to the different situations and events they are exposed to. These sequences of trial-and-error include both the processes whereby organisations defensively adjust themselves to what is happening in their environment, and the processes whereby knowledge is applied offensively to enable a better match between the organisation and its environment. Individual stimuli are combined into compound meaningful stimuli that map the environment for action. This combining or aggregation of stimuli is driven by rules that enable the meaningful interpretation of stimuli. Other rules are activated by the interpretations, which then assemble responses.

For the proper identification of stimuli and the consequent selection of responses, organisations map their environments and determine what causal relationships are functioning in this environment. The resulting maps represent theories of action and are elaborated and refined as people are exposed to new situations. Weick highlights that this mapping and maps, mental models, and knowledge structures are of importance to the problems of sensemaking. They contain substance that provides a meaningful frame that facilitates meaningful noticing.

¹⁴⁷ Weick KE. 1995. 120.

¹⁴⁸ Hedberg B. 1981. Cited by Weick KE. 1995. 121.

¹⁴⁹ Weick KE. 1995. 121.

Argyris describes the properties of theories of action in the following:

*People may be said to develop theories of action to guide their behavior, to make it more manageable, to make it more consistent, and thereby to maintain their sense of being personally responsible – of being an origin of their behavior.*¹⁵⁰

Weick explains that by theory Argyris actually means a set of interrelated propositions with an “if...then” form. What becomes problematic in effective action is that the theories of action that people use may actually differ from the theories of action they espouse. Since theories of action in use provide a stable view of the world, they are difficult to change.

Argyris also noted that theories-in-use result in enactive sensemaking. Action applies and tests the theory as well as shape the behavioural world that the theory is all about. In a way every theory-in-use is a self-fulfilling prophecy. The reality of our behavioural world is constructed in the same way that we construct a theory-in-use. To construct a theory is to construct reality because on the one hand theories-in-use determine our perception of our behavioural environment and on the other hand determine our actions. This once again determines the features of the behavioural world, which then feeds back into our theories-in-use. Our theories-in-use must be examined in the progressive developing interaction between the theory-in-use and the behavioural world, where something is done to others in our behavioural world, and in turn has an impact on ourselves.

When we talk about theories of action it involves

*abstractions that simplify in the interest of action.*¹⁵¹

The content of the abstractions is the result of socialisation reflecting the ideology of the organisation. Since theories of action are abstractions, it could be expected that they are crude maps of the territory of action. That is why the distinction between theories-in use and espoused theories is not entirely clear. Ryle¹⁵² distinguishes between the *knowledge that* of theory and in the context of practice, the more tacit *knowledge how*. People move from controlled to automatic processing and are then jolted back into controlled processing when there is an interruption of theories-in-use. Once espoused theories are routinised they are transformed back into the automatic processing of theories-in-use.

¹⁵⁰ Argyris C. 1976. Cited by Weick KE. 1995. 122.

¹⁵¹ Weick KE. 1995. 123.

¹⁵² Ryle G. 1949. Cited by Weick KE. 1995. 123.

Theories in action are associated with content of

*statements about implications, statements containing if-then assertions and statements that describe means-end structures.*¹⁵³

Theories of action are plausible structures of sensemaking.

1.6.6 Tradition: Vocabularies of Predecessors

Weick leaned on the work of Shils in discussing traditions and describes it as:

*...something that was created, was performed, or believed in the past, or believed to have existed, or to have been performed or believed in the past, and that has been or is being handed down or is transmitted from one generation to the next. For something to qualify as a tradition a pattern must have been transmitted at least twice over three generations.*¹⁵⁴

Weick highlights however, that generations may no longer exist in the age of mergers, acquisitions, takeovers, reorganisation and downsizing. He argues that

*we may be first-generation members, all the time and over and over.*¹⁵⁵

Quasi-generations may still exist but, they will be defined more by history of assignments than by longevity.

What can be transmitted as traditions are images, objects and beliefs, but what cannot be transmitted are actions. As soon as an action was performed it no longer exists. Only images of action can be transmitted, and beliefs that require or recommend that that these images be re-enacted.

In traditions concrete human action and know-how that is embodied in practice can only be transmitted once it becomes symbolic.

*To preserve its form, one must change its form – and then reconstitute it.*¹⁵⁶

What these complex transformations imply is that the content of the images used to depict action, are vital due to the fact that they would determine what is perpetuated. The symbolic encodings of work that enable transmission over generations include images of know-how, recipes, scripts, rules of thumb and heuristics. Closer attention to these descriptions means

¹⁵³ Weick KE. 1995. 124.

¹⁵⁴ Shils E. 1981. Adapted by Weick KE. 124.

¹⁵⁵ Weick KE. 1995. 24.

¹⁵⁶ Weick KE. 1995. 125.

that successors will benefit more from the experience of predecessors. When closer attention is paid one becomes more aware of actions that are otherwise taken for granted. Those actions are punctuated and labelled in ways that enable their unique form to be preserved. Extended apprenticeships should be allowed as far as possible to transfer that which knowledgeable practitioners cannot verbalise. Stories involving action are of major importance due to the fact that their content is so complex to transmit. Since theories of action embody generic images of action they tend to be very persistent. If there is focus on the articulation of cause maps capturing people's expertise, these symbolic products can be advantageous to subsequent generations by increasing their capabilities, in comparison with other groups where such articulation is neglected. The result of such symbolic work would be the more accurate reconstruction of practices and institutions made up of human action.

*A tradition of conduct*¹⁵⁷ is created when individuals, groups and organisations put in effort in articulating their fleeting actions. What is captured in such a conduct are the images and beliefs that encapsulates

*the patterns which guide actions, the ends sought, the conceptions of appropriate and effective means to attain those ends, the structures which result from and are maintained by those actions.*¹⁵⁸

This is how traditions make content resources available for sensemaking.

Weick notes that an important aspect of frames is the degree to which they address action. Since images of action are hard to convey, it seems true that when people attempt those images, they do so virtually uninformed. What is basically known is the context, the situation and the reaction of others, less is known about specifics of how their predecessors functioned under similar conditions. The same holds true for people's own memory of prior actions. Thus if images are underdeveloped it may invariably lead to underdeveloped actions. Similar to paradigms, traditions have exemplars and custodians, stories, and storytellers. What holds true is that actions are evanescent, but stories about action are not. The question involving the substance of sensemaking is around what persists when actions keep vanishing, given that organisations are social forms differentiated by their ability to coordinate action, and that the distinctive nature of those forms disappear the moment it occurs.

¹⁵⁷ Weick, KE. 1995. 126.

¹⁵⁸ Shils E. 1981. Cited by Weick KE. 1995. 126.

1.6.7 Stories: Vocabularies of Sequence and Experience

Although content is important in sensemaking, the meaning of the content is what sensemaking is actually about. Meaning is established by the linking of different kinds of content by a connector.

Ideologies, third-order controls, paradigms, theories of action and *stories* are important to sensemaking because their content permeates organisations and interpretations. Meaning is created when two or more of these pieces of content are linked in a meaningful connection. Meanings are flexible and vary depending on the content and connections.

*People think narratively rather than argumentatively or paradigmatically...*¹⁵⁹

The realities of organisations are based on narration whereas the models of organisations are largely based on argumentation. This poses problems to people because the organisational structures are not such as to support their skills at narrative sensemaking and interpretation. People tell stories of significant experiences in an attempt to make the unexpected more expectable and manageable.

Stories that are vivid, tellable, interesting and in other words noteworthy, divert from the current frames and norms of experiences in four ways: actions that are described are difficult, a dilemma is caused by the situation and cannot be resolved in the standard way, the normal sequence of events is unexpectedly interrupted, and to the narrator there is something unusual about the situation.¹⁶⁰ The effect of interesting stories is that it poses a threat to people's frames and models of reality and that means that cues activate a combination of fear and curiosity. Because of the novelty of interesting stories it is difficult to update a frame with their content, even if there is an alleged reason to do so. The result of this may be that the stories present an ongoing cue in search of a frame.

When experiences are translated into stories the stories do not represent the exact experience, but is filtered and edited. Events in the story are then sorted into a sequential order.

*Stories are inventions rather than discoveries.*¹⁶¹

¹⁵⁹ Weick KE. 1995. 127.

¹⁶⁰ Robinson JA. 1981. Cited by Weick KE. 1995. 127.

¹⁶¹ Weick KE. 1995. 127.

The prerequisites for generating a good story offer a plausible frame for sensemaking. Stories account for the history of an outcome. Events are tied into a plot which then produces the outcome. The sense of stories lies in the sequence.

Weick explains that sequencing is a powerful heuristic for sensemaking. When a story clarifies and orders events in one area, it can also be applied to adjacent less ordered areas.

A repertoire of stories is a key to sensemaking. The connection between different stories in a repertoire creates meaning. The fact that the story has a punch line makes it possible to link it to a new event or outcome, which then allows for prediction, understanding and possibly control.

Weick mentions some additional functions of stories to sensemaking. Stories aid understanding by linking that which is known with that which is imagined. Through stories a list of events can be linked and organised into a causal order. In order to create meaning stories can connect absent events with things happening in the present. Stories serve as mnemonics assisting people in the reconstruction of earlier complex events. Before routines are formulated, action can be driven by stories, or after the routines are implemented stories can enrich them. By means of stories people can build a database of experience from which they can understand how things work. Stories can transmit and strengthen third-order controls by conveying shared values and meaning. When disruptions in projects occur, stories can assist in the diagnosis thereof and reduce the impact of the disruption.¹⁶²

Where there is an escalation of complexity, as in organisations where people work among complex interdependencies that can generate implausible outcomes, the rate at which pressure builds can be slowed down by stories. This can be done by the simplification of tasks which enables people to tolerate more pressure and keep arousal levels lower. In addition stories can minimise elements of surprise, and create alerts to possible surprises or events. At the same time they can also reduce the significance of events and the demands that might be brought forward by these events. Because stories reduce pressure they can slow down the tempo with which peripheral and then central cues are overlooked in situations of arousal.

Stories are cues within frames and they are also able to create frames. Ideologies, paradigms and traditions are recognised through their examples rather than by way of their abstract framing principles.

¹⁶² Weick KE. 1995. 129.

viThe substance of sensemaking becomes meaningful through two basic forms being stories that represent frames, and frames that involve stories.¹⁶³

1.7 Conclusion

At its core, sensemaking endeavours to deal with what is unique and transient on an ongoing base. Sensemaking, in its most dramatic form deals with an issue of

*how to accept the diversity and mutation of the world while retaining the mind's power of analogy and unity so that this changing world shall not become meaningless...*¹⁶⁴

Work done so far suggests that sensemaking is valuable in organisational studies because it fills many gaps. The analyses of sensemaking provides: firstly, a micro mechanism the effect macro consequences over time; secondly, it reminds us that action is just slightly ahead of cognition meaning that *we act our way into belated understanding*¹⁶⁵; thirdly, an illumination of predecisional activities; fourthly, enactment as a means by which agency changes institutions and environments; fifthly, the occasion for incorporating meaning and mind into organisational theory; sixthly, a counterpoint to the sharp split between action and cognition that is often visible in descriptions of organisational life; seventhly, a setting for an intention-based view of the organisation; eighthly, balancing prospect (anticipation) and retrospect (resilience); ninthly, reinterpretation of interruptions as opportunities for learning rather than as threats to efficiency and tenthly, a base to treat plausibility, incrementalism, improvisation and bounded rationality as adequate to guide goal-directed behaviour.

In the study of sensemaking important capabilities and skills surface that warrant attention and development. An example is that the concept of enacted environments proposes that constraints are partly self-imposed and not merely objects to which one reacts. In addition to that the concept of sensemaking suggests that learning is guided by plausibility rather than accuracy; the concept of action proposed that it is better to act than to pause because action is embedded in the ongoing flow of experience; the concept of retrospect suggests that the supposed stimuli for action such as diagnosis, strategies and plans for implementation are as much the results of action as they are the initiators of action.

Collectively these properties suggest and increased skill at sensemaking when people are

¹⁶³ Weick KE. 1995. 131.

¹⁶⁴ Weick KE. 1995. 171.

¹⁶⁵ Weick KE, Sutcliffe KM, Obstfeld D. 2005. 419.

*socialised to make do, be resilient to treat constraints as self-imposed, strive for plausibility, keep showing up, use retrospect to get a sense of direction, and articulate description that energise. These are micro-level actions. They are small actions, but they are small actions with large consequences.*¹⁶⁶

¹⁶⁶ Weick KE, Sutcliffe KM, Obstfeld D. 2005.419.

Chapter 2

Communities of Practice

2.1 Introduction

Globalisation and the knowledge economy are drivers of an increasingly complex world where traditional organisational structures no longer suffice. In companies that thrive on knowledge, communities of practice are emerging as new organisational forms. Organisations should understand what these communities are and how they work, and realise that they are the hidden wells of knowledge which are key to the challenges of the knowledge economy.¹⁶⁷

*Communities of practice are everywhere.*¹⁶⁸

Every one of us belongs to a number of communities, be it at work, home or the parent group of our children's school. Some are formal and have names where others are largely invisible. In some we participate as core members whereas in others we may only be occasional participants. Belonging to a community of practice is a familiar experience to all people.

The phenomenon of a *community of practice* is not new. Communities of practice have existed since ancient times and were the first knowledge based social structures. A community of practice can be a group of engineers who meet regularly to compare and discuss the intricacies of their designs, or parents taking advantage of a soccer game to share parenting tips, or artists getting together in coffee shops to talk about the latest styles and techniques. In classical Greece for example, *corporations* of metalworkers, potters, masons and other craftsmen did not only have a social purpose (their members worshipping the same deities and joining in the celebration of holidays), but also a business function in which apprentices were trained and innovation was spread. In the Middle Ages guilds fulfilled similar roles for artisans right through Europe. Guilds became less powerful during the industrial era, but that did not stop communities of practice proliferating in such a way that today it features in many aspects of human life.

The members of a community of practice do not necessarily work together, but they find value in their meetings and interactions where they typically share information, insights and

¹⁶⁷ Wenger E, Snyder WM. 2000. Communities of Practice: The Organizational Frontier. 145.

¹⁶⁸ Wenger E. 1998a. Communities of Practice: Learning as a Social System. 2.

advice. A community of practice is not the same as a community of interest or geographical community since the latter does not imply shared practice.

Some communities of practice have regular face-to-face meetings while others are primarily connected via e-mail networks. They solve problems together as communities. Situations, issues, needs, and ideas are explored, and artefacts such as documents, standards, tools or designs are created. Knowledge is accumulated and the community becomes informally bound by the value they get from their joint learning. This value is not only focused on work, but also involves the personal satisfaction of interacting with other members who understand each other's viewpoints. It is also of value to belong to a group of people that you find interesting. Apart from a unique perspective on their specific topic, the group also develops common knowledge, practices and approaches. Personal relationships are cultivated and ways of interacting are established. Usually a common sense of identity develops.

*They become a community of practice.*¹⁶⁹

2.2 Understanding Communities of Practice

*Communities of practice are groups of people who share a concern, a set of problems, or passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing base.*¹⁷⁰

Community of practice is a concept that was originally created by Lave and Wenger in a study of situated learning. According to Lave and Wenger a community of practice is an intrinsic condition of the existence of knowledge.¹⁷¹

The roots of communities of practice can be traced back to constructivism where the main principle is the shift from instructors to learners. Constructivism involves the following concepts:

Ill structured problems (e.g. open-ended questions). In the traditional learning environment problems are abstracted and simplified in order for learners to focus on certain concepts. Learners then need to apply generalised concepts to diverse situations in future realistic applications. Ill structured problems are however, real complex problems that learners would encounter in the real world. The constructivist learning environment aims at replicating a

¹⁶⁹ Wenger E, McDermott R, Snyder WM. 2002. *Cultivating Communities of Practice*. 5.

¹⁷⁰ Wenger E, McDermott R, Snyder WM. 2002. 4.

¹⁷¹ Lave J, Wenger E. 1991. *Situated Learning: Legitimate Peripheral Participation*. 98.

realistic problem situation so that learners can develop skills in complex and messy problem solving.

Learning in social and physical context of real-world problems, including group activities, collaboration, and teamwork. In reality problem solving is usually done within teams where members offer a diversity of expertise, experience and backgrounds. In constructivist learning the purpose is to simulate this social interdependence.

Shared goals, which are negotiated between both instructors, learners, and between learners. This negotiated process enables learner ownership over the process and problems and therefore increases interest and learning.

Cognitive tools, which aid in helping learners organise knowledge, such as methods of categorisation, organisation, and planning. These cognitive tools can be supported by processes, procedures and technology.

An instructor's role as facilitator or coach. Dealing with ill structured problems requires skills that are beyond the ability of any single person or even an instructor. The instructor's role thus changes to that of a guide to assist learners in reaching their goals by helping them to develop cognitive and metacognitive strategies.¹⁷²

In his theory on communities of practice Wenger describes four necessary components as characteristics of social participation in the process of learning and knowing:

*meaning as a way of talking about the (changing) ability individually and collectively to experience life and the world as meaningful; practice as a way of talking about the shared historical and social resources, frameworks, and perspectives that can sustain mutual engagement in action; community as a way of talking about the social configurations in which the enterprises are defined as worth pursuing and the participation is recognisable as competence; identity as a way of talking about how learning changes who we are and creates personal histories of becoming in the context of the communities.*¹⁷³

The negotiation of meaning takes place through a process of participation and reification.¹⁷⁴ Reification is defined as the

¹⁷² Johnson CM. 2001. A survey of current research on online communities of practice. 47.

¹⁷³ Loyarte E, Rivera O. 2007. Communities of practice: a model for their cultivation. 67-77.

¹⁷⁴ Wenger E. 1998b. *Communities of Practice: Learning, meaning and identity*. 58.

*process of giving form to experience by producing objects.*¹⁷⁵

These objects include abstractions, tools, symbols, stories, terms and concepts reifying a part of the practice in a congealed form. The meaning of such forms can evolve beyond or even disappear outside of the original context.

According to Wenger communities of practice are valuable places for the negotiation of learning, meaning and identity. He distinguishes between three dimensions by which practice is the basis of coherence of a community. *Mutual engagement* is about how participants interact to establish norms and relationships. Community members share a sense of *joint enterprise* which means that they have a sense of collectively negotiated agreements and mutual accountability within the community. Over time, through their joint pursuit members produce a *shared repertoire* of communal resources which includes routines, words, tools, ways of doing things, stories, gestures, symbols, genres, actions or concepts that have become part of their practice.¹⁷⁶

Members may not be fully aware of their community of practice since

*a community of practice need not be reified as such in the discourse of its participants.*¹⁷⁷

A community of practice has a number of key characteristics, as displayed in the following table:

¹⁷⁵ Roberts J. 2006. Limits to Communities of Practice. 624.

¹⁷⁶ Wenger E. 1998b. 82-83.

¹⁷⁷ Wenger E. 1998b. 125.

Key characteristics of communities of practice

- Sustained mutual relationships – harmonious or conflictual
 - Shared ways of engaging in doing things together
 - The rapid flow of information and propagation of innovation
 - Absence of introductory preambles, as if conversations and interactions were merely the continuation of an ongoing process
 - Very quick setup of a problem to be discussed
 - Substantial overlap in participant's description of who belongs
 - Knowing what others know, what they can do, and how they can contribute to an enterprise
 - Mutually defining identities
 - The ability to assess the appropriateness of actions and products
 - Specific tools, representations, and other artefacts
 - Local lore, shared stories, inside jokes, knowing, laughter
 - Jargon and shortcuts to communication as well as the ease of producing new ones
 - Certain styles recognised as displaying membership
 - A shared discourse reflecting a certain perspective on the world
-

Table 2.1 *Source:* Wenger E¹⁷⁸

2.2.1 Structural Elements of a Community of Practice

Wenger, McDermott and Snyder defined a structural model for communities of practice which entails three fundamental elements: a *domain* of knowledge describing a set of issues; a *community* of people with an interest in the domain; and the shared *practice* that the community is developing to be effective in their domain.

*The combination of domain, community, and practice is what enables communities of practice to manage knowledge. Domain provides a common focus; community builds relationships that enable collective learning; and practice anchors the learning in what people do. Cultivating communities of practice requires paying attention to all three elements.*¹⁷⁹

Within the *domain* a common ground and sense of identity is formed. If a domain is well defined it legitimises the community by the confirmation of its purpose to members and other stakeholders. The domain serves a purpose of stimulating participation and contribution, directing learning and enabling members to derive meaning from their actions. The boundaries of the domain allow members to decide on what to share, how they should present

¹⁷⁸ Wenger E. 1998b. 125-126

¹⁷⁹ Wenger E. 2004. Knowledge Management as a Doughnut: Shaping your Knowledge Strategy through Communities of Practice. 3.

their ideas as well as the actions that are worth pursuing. This also enables them to see the potential in ideas that have not yet been fully developed.

Members of a community share an understanding of the purpose and issues of their domain, but that requires commitment to the domain. It is this commitment that distinguishes the community from a group that are merely friends. If the domain is shared it generates accountability to a body of knowledge and consequently to the development of a practice.

The questions that are asked and the way knowledge is organised are all guided by the domain. It helps members to decide what they need to share, what matters, and to discern valuable from insignificant ideas. The domain of the community is not necessarily about highly specialised professional expertise, but can involve very mundane know-how such as eating healthy food. Where there are recognised topics, such as in a professional discipline, it is much easier to define a domain even though people do not always start a community based on identifiable topics.

The domain remains a community of practice's reason for existence. It is what brings them together in the first place and establishes them. Their domain provides a community with an identity and a place in the world. Domains are not fixed sets of topics, hot topics come and go and that generates energy. Topics or problems can be changed by new technology, other problems being solved, or new members bringing in fresh perspectives. Despite the evolving of problems and discourse in the community, it normally remains firmly rooted in the identity and the shared understanding of the community's domain. Defining and mapping the content of a domain is no easy task. A domain that is worthwhile is not temporary like a passing issue.

*It concerns complex and longstanding issues that require sustained learning.*¹⁸⁰

Domains are not abstract and do not only involve areas of interest, but are rather about key issues or problems experienced by members, which are then shared within the community.

Communities of practice have a bigger chance of success where there is an overlap between the passions of the participants and the goals of the organisation. Members of the community will struggle to keep the community alive if they do not find the community and its activities inspiring. When topics under discussion do not support the strategic initiatives of the organisation the community will become marginalised and it will receive less recognition

¹⁸⁰ Wenger E, McDermott R, Snyder WM. 2002. 32.

from the organisation. The link between personal meaning and strategic relevance is a powerful source of energy and value. Domains that allow the bridge between community and organisation stimulate thought leadership and a spirit of enquiry that ensures that the community remains vibrant.

If a domain is well developed it becomes in itself a statement of the knowledge that the community will eventually be the custodian of. The community takes the responsibility of a certain area of expertise in order to provide the organisation with the best possible knowledge and capabilities available. If the organisation in turn acknowledges a domain, it does by implication give recognition to the community's role in hosting its specific expertise and skills. Companies where communities of practice are acknowledged would not make important decisions impacting the community's specific domain without consulting the community.¹⁸¹

What is critical to an effective knowledge structure is the element of *community*. A community consists of a group of people who interact, learn together, build relationships, create knowledge and have a sense of belonging and commitment. It is not just a website, database or collection of best practices. In a community where participants share the same views of their domain, but still bring in their own perspectives, ideas and experiences, a learning system is created where the whole is much more than the sum of its parts. Members act as sounding boards to each other, expand on each other's ideas, and filter knowledge to prohibit an overload of knowledge. Most critical to a community are the interpersonal relationships between members. Mutual feelings of trust, openness, a sense of belonging, shared commitment and common values enables joint learning amongst community members.¹⁸² The trust relationships between members allow them to feel safe asking for help and in turn, experts can be comfortable that members who ask questions are competent and will not be wasting their time.

The success of a community of practice is largely dependent on the regular interactions of its members on topics relevant to the domain. In a community of practice interaction must have continuity; it cannot be a once off discussion between two people sitting next to each other on an aeroplane.¹⁸³ Regular interaction between community members allows for a shared appreciation of not only their domain, but also the approach to their practice. During the

¹⁸¹ Wenger E, McDermott R, Snyder WM. 2002. 29-32.

¹⁸² Snyder WM, De Sousa Briggs X. 1999. Communities of Practice: A New Tool for Government Managers. 9.

¹⁸³ Wenger E, McDermott R, Snyder WM. 2002. 35.

course of interaction valuable relationships are built, based on respect and trust, resulting in the development of a shared history and identity.

Although commonality is implied in a community of practice, homogeneity is not characteristic of the ideal community. Long term interaction does not only build a common history but also supports diversity between members. This is because members feel more comfortable in developing their own unique identities and specialities within the group and freely share their views. Each member develops a reputation as well as their own sphere of influence within the community. Homogeneity may be a factor in the start-up of a community but it is neither crucial to success nor a necessary result. Interactions in the community are both around commonality and diversity. Some common ground is necessary for mutual engagement but enough diversity encourages creativity, stimulating relationships and rich learning.

There is no absolute recommendation for the ideal size of a community. Certain principles have to be kept in mind though: if the group is too small it is difficult to sustain interaction and offer a large enough variety of perspectives; when a community becomes too large, direct interaction may become problematic. Wenger, McDermott and Snyder state the fact that communities change in structure and characteristics as they grow and that

*Communities with less than fifteen members are very intimate. Between fifteen and fifty participants, relationships become more fluid and differentiated. Between fifty and 150, communities tend to divide into subgroups around topics or geographical location, and beyond a 150 members , the subgroups usually develop strong local identities...these nested subcommunities within a single large community allow members to be very engaged locally while retaining a sense of belonging to the larger community.*¹⁸⁴

Membership of a community of practice is a personal matter and in essence has to be voluntary. This is very different from traditional organisational structures where management assembles the teams and people are involuntarily assigned to a specific team. For a community of practice to succeed, members have to have a personal passion for the community and coercion will not be effective. Participation can be encouraged rather than forced and encouragement is often necessary so that members can realise the real value of learning together in a community. Communities do not have to be totally spontaneous. The

¹⁸⁴ Wenger E, McDermott R, Snyder WM. 2002. 35-36.

success of the community will however, depend on the energy generated by the community rather than by an external mandate.

Internal leadership is an important aspect that all healthy communities depend on. The dependence is not on a single person though; the leadership must be distributed and representative of the whole community. Roles in the community are not simply that of leaders and followers, but are rather a case of an ecology of leadership. Roles in the community include community organisers, experts, thought leaders, pioneers, administrators and boundary spanners. The roles may be formal or informal and either concentrated on a small subgroup or widely distributed. For any person to undertake a leadership role they must have internal legitimacy within the community. As a community matures external leaders become more important to the community because members depend on them for their influence, access to resources and for building credibility with teams and business units within the organisation.

Reciprocity is very important in a community of practice. The community serves as a pool of social capital where members trust that if they contribute to the community they will at some stage benefit from the contributions of others. In a successful community members will realise that everyone has a responsibility to make the community valuable.

For learning to take place in a community an atmosphere of openness must exist. An effective community is a place of exploration where there is trust and members feel safe to speak the truth and challenge where necessary. This does not necessarily imply the absence of conflict. In a strong community conflict can be used in a very productive way. Conflict can be utilised to deepen both relationships and the learning process.

A shared *practice* has to have an established baseline of common knowledge assumed on the part of each full member. People have different areas of individual expertise, but they still have a basic foundation of knowledge that enables them to work together effectively.

Within the practice of a community both the existing body of knowledge and new advances in their specific field are explored. This existing body of knowledge

*embodies the history of the community and the knowledge that it has developed over time.*¹⁸⁵

¹⁸⁵ Wenger E, McDermott R, Snyder WM. 2002. 38.

The practice is also future orientated and equips members with resources to deal with novel situations and create new knowledge. A shared practice stimulates innovation because the language it provides facilitates quick transfer and communication of new ideas and also enables focused communication.

A practice represents a set of socially defined ways of doing things in a certain domain; it comprises of a set of common approaches and shared standards that create a foundation for action, communication, problem solving, performance and accountability. The shared resources of a community of practice include knowledge types such as stories, theories, frameworks, tools, lessons learned and more. Objects both concrete and less tangible are included as part of the community's shared resources. These could include books, articles, knowledge bases, web sites, and other shared repositories. The practice of a community is in a way a mini-culture with its own ways of doing, perspectives on problems, ideas, thinking styles and ethical viewpoints.

An effective practice is one that is integrated into people's work and is a collective product that evolves with the community. The community organises its knowledge in such a way that it reflects the viewpoints of participants and is useful to them. Communities have their own ways of making their practice visible. They do this through the ways that they develop and share knowledge. Storytelling is one such example. The requirements for actual use of the knowledge determine the mode of capturing and communication of the knowledge.

Documentation forms an integral part of a community's practice although it should not be a goal in itself. It is important that the community shares an understanding of which parts of its domain are codifiable. In any practice there should be a balance between joint activities and the production of artefacts like documentation or tools.

*It involves an ongoing interplay of codification and interactions, of the explicit and the tacit.*¹⁸⁶

The respective goals of interacting with peers and producing knowledge products are complementary to each other. Documentation and codification aim at focusing community activities and these activities give life and legitimacy to the documentation.

The successful building of a community and its practice are part of the same process and go hand-in-hand. In this process practitioners must have a chance to build a reputation as

¹⁸⁶ Wenger E, McDermott R, Snyder WM. 2002. 39.

contributors to the community. Before new contributions are accepted as communal knowledge it must be subjected to a process of validation and endorsement. Endorsements can be done by reputable experts. When communities debate about practice frameworks and methods, it allows them to own their standards. Reaching agreement on standards and best practices may invariably lead to some conflict or disagreement. When this happens in the context of an ongoing community, it becomes a component of ongoing debate that members of the community have committed to. The ongoing commitment of members is what puts coping with debates or disagreements into perspective.¹⁸⁷

2.2.2 The Different Forms of Communities of Practice

Communities of practice exist in a variety of forms that differ in name and style:

Small or big. Some communities of practice consist of a small intimate group of specialists whereas others involve hundreds of people. Large communities are normally structured differently by subdividing into geographical regions or subtopics. The purpose of this is to motivate members to actively participate in their communities.

Long-lived or short-lived. Although it takes time to develop a practice there is a large variation in the life span of communities of practice. Communities like those of artisans existed over centuries from generation to generation, where communities like COBOL programmers may be in existence for only a few years.

Collocated or distributed. Collocation of members is not a necessity for a community of practice even though many communities start off with people living or working together in close proximity. What is essential is that sharing a practice requires regular interaction. Many communities are distributed over vast areas. For ages scientists have been communicating across the globe. There are communities that meet regularly once a week and others that remain in contact mainly via phone or email and just meet once or twice a year. It is not the specific choice of communication that allows members to share knowledge, but rather a shared practice including a common set of situations, problems and perspectives. It remains debatable whether face-to-face contact is an absolute necessity and how often it is required. Distributed communities are becoming more and more of a standard due to globalisation and the development of technologies like Skype and videoconferencing.

Homogenous or heterogeneous. Many communities are homogeneous, involving people from the same discipline or function. Communities are not always built by and with people of the

¹⁸⁷ Wenger E, McDermott R, Snyder WM. 2002. 40.

same background, although it is easier if backgrounds are alike. Having a problem in common may also be a reason for starting a community and building a shared practice. The potential for close bonding is equally possible for people who do not have a lot in common than those who come from similar backgrounds.

Inside and across boundaries. A community of practice can exist within a business unit, span across different units or even be spread across more than one organisation. *Within businesses:* in a community of practice people address sets of recurring problems together. An example of this would be that of a group of claims processors within an office forming a community of practice to accelerate the constant flow of information they are required to process. Their participation in a *communal memory* assists them in doing the job without having to remember all the detail themselves. *Across business units:* Important knowledge is often found spread across different business units. People in functional units form communities of practice to stay in contact with their colleagues or peers in different business units in order to maintain their expertise. For example, safety managers of a large chemical company meeting regularly to solve problems and develop common guidelines, tools, standards and documents. *Across organisational boundaries:* Communities of practice are not dependent on a connection between organisations to span the organisational boundaries. This very crossing of boundaries can make them particularly useful when one keeps the concept of the extended enterprise in mind. In the fast moving technology industry engineers often form a community of practice to stay up to date with the latest developments.

Spontaneous or intentional. In many instances communities of practice start when members come together spontaneously because they need each other as peers or learning partners. This happens without intervention or effort from the organisation. In other cases though, specific communities of practice are developed intentionally by the organisation in order to be the custodians of a needed capability. The fact that a community of practice is spontaneous or intentional does not dictate the level of formality. Some communities are very structured having formal meetings with agendas, defining specific roles and developing artefacts such as knowledge bases or websites. In contrast some highly active and mature communities remain very informal.

Unrecognised to institutionalised. The relationships of communities to organisations can vary from totally unrecognised to highly institutionalised. A group of nurses may have lunch together and discuss their patients and examine new problems. Over time these lunchtime discussion may become one of their main sources of new knowledge. The hospital

administration may be totally oblivious to the value and knowledge sharing of these lunchtime discussions. By way of contrast, communities of practice may become so valuable that they are incorporated into the formal structure of the organisation. In the variation of relationships communities have with organisation, one type of relationship is not superior to another; it is a matter of different issues arising as the relationship changes.¹⁸⁸

2.2.3 The Development of Communities of Practice

*Communities of practice develop around things that matter to people.*¹⁸⁹

Communities of practice go through different stages of development and these stages are differentiated by various levels of interaction between members as well as the different activities they engage in. Figure 2.1 summarises the stages of development of a community of practice and highlights the core activities of each stage.

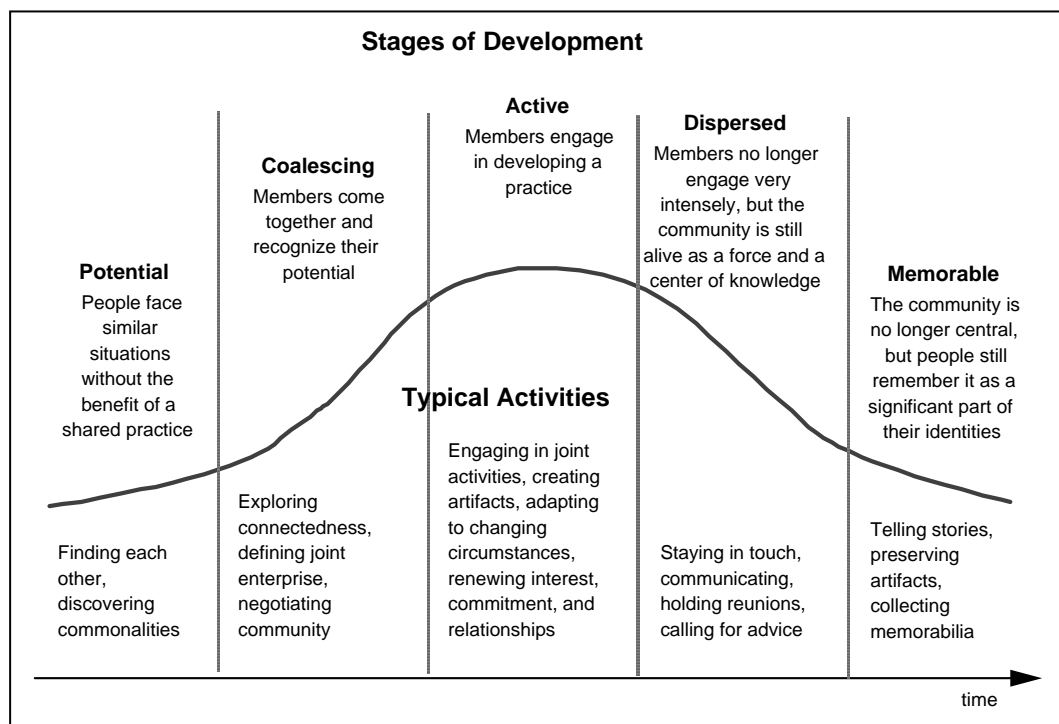


Figure 2.1 Stages of Development in Communities of Practice

Source: Wenger E¹⁹⁰

¹⁸⁸ Wenger E, McDermott R, Snyder WM. 2002. 24-27.

¹⁸⁹ Wenger E. 1998a. Communities of Practice: Learning as a Social System. 2.

¹⁹⁰ Wenger E. 1998a.3.

2.2.4 The difference between Communities of Practice and Traditional Structures

Communities of practice are not a new kind of organisational structure, but rather a very specific kind of social structure with a very specific purpose. It is one that emphasises the learning that people engage in together, and not the unit they report to, nor the projects they are involved in or the people they know. Communities of practice are different from other groups in the organisation in that they are emergent and self-organising.¹⁹¹ They negotiate meaning and set their own boundaries.

The difference between a community of practice and a *functional business unit* lies in the fact that a business unit aims to achieve business goals through allocating resources and driving business processes and standards. A community of practice in turn, has as its prime objective the development of knowledge and the facilitation of learning. It defines itself in the *doing*, as members develop their own sense of what their practice is about. The fact that a community of practice is a living entity means that it has a much richer definition than a mere institutional charter.¹⁹² Consequently a community of practice has more flexible boundaries than those of a traditional organisational unit. Membership is open to all that participate or contribute to the practice. A permeable periphery allows for people to participate in the community in different ways and to different degrees. This happens as outsiders and newcomers gain knowledge of the practice in concrete terms and the core members gain new insights from interactions with less-engaged participants.

¹⁹¹ Callaghan S, Milne P. 2004. Communities of Practice Variety form a Complexity Perspective. 2. There are parallels between complexity theory and modern organisations. Communities of practice are in a way microcosms of larger organisations, but they do not include the hierarchy and bureaucracy inherent to traditional organisations. The basic features of a complex system that apply to the modern organisation and to communities of practice as well are: components arranged in networks, non-linear interactions between components and most prominent in communities of practice - self-organisation and emergence.

Wenger E, McDermott R, Snyder WM. 2002. 21 The complex nature of communities of practice is highlighted by the authors' first design principle for communities: *design for evolution*.

¹⁹² Wenger E. 2005. Communities of practice in and across 21st century organizations. 4. Although the institutionalisation of communities requires caution, there are some instances where it makes sense. However, that is only to the extent that the domain is of critical strategic importance, which may require the investment of extensive resources. Some of them may be full-time core members and some communities may even become a department within the organisation, but then it is important to still maintain a distinction between the formal department and the community of practice it represents. In this case there can be more distinct boundaries and everyone in the community, like the more peripheral members, may not be part of the department. For the underlying community there are likely to be different sources of motivation, qualities of relationship and governance expectations. The institutional part of the community can be described as the core of the broader community.

Communities of practice and *project* or *operational teams* differ in the sense that the shared learning and interests of members of a community are what keep them together. In contrast to communities of practice, teams are predominantly task driven and team leaders manage specific deliverables in order to meet the agreed objectives. Communities of practice are knowledge- rather than task defined, and its existence is dependent on the value it offers to its members. That value rather than an institutional schedule determines the life cycle of the community.¹⁹³ Teams are created by managers to complete a specific project. Team members are selected on account of their ability to contribute to the team's goals. Communities of practice are informal and their members are self-selected. They organise themselves in the sense that they set their own agendas and determine their own leadership and are therefore self-governed. New members are invited to the community on a gut sense of the value they can contribute.¹⁹⁴ A community of practice does not just start up from a single point in time similar to a project and then ends when tasks are completed. It's coming into being is a gradual process and it can continue long beyond the completion of a project or the dispersement of an official team. Brown and Duguid compares communities of practice with group theory and concludes that

*group theory in general focuses on groups as canonical, bounded entities that lie within an organization and that are organized or at least sanctioned by that organization and its view of tasks.*¹⁹⁵

In comparison to other types of groups, communities of practice are non-canonical and not always recognised by the organisation.¹⁹⁶

A community of practice is different from a *network*; a community is *about something* whereas a network is limited to a set of relationships. The community has an identity of its own and that collective identity shapes the identities of its members. The existence of a community of practice is a result of the shared practice produced by its members as they engage in a collective process of learning. People can belong to communities of practice and other organisational structures simultaneously.

¹⁹³ Wenger E. 1998a. 4.

¹⁹⁴ Wenger E. 2000. 141-142.

¹⁹⁵ Brown JS, Duguid P. 1991. Organizational learning and communities-of-practice: towards a unified view of working, learning and innovation. 49.

¹⁹⁶ Gourlay S. 1999. Communities of Practice: a New Concept for the Millenium, or the Rediscovery of the Wheel? 7.

*In their business units they shape the organisation. In their teams, they take care of projects. In their networks they form relationships. And in their communities of practice, they develop the knowledge that lets them do these other tasks. This informal fabric makes the official organization effective and, indeed possible.*¹⁹⁷

See Table 2.2 for *A Snapshot Comparison* of how communities of practice differ from other forms of organisational structures in several ways, even though they compliment each other.

A Snapshot Comparison				
	What is the purpose?	Who belongs?	What holds it together?	How long does it last?
Community of practice	To develop member's capabilities; to build and exchange knowledge	Members who select themselves	Passion, commitment, and identification with the group's expertise	As long as there is interest in maintaining the group
Formal work group	To deliver a product or a service	Everyone who reports to the group's manager	Job requirements and common goals	Until the next reorganisation
Project Team	To accomplish a specified task	Employees assigned by senior management	The project's milestones and goals	Until the project has been completed
Informal Network	To collect and pass on business information	Friends and business acquaintances	Mutual needs	As long as people have a reason to connect

Table 2.2 A Snapshot Comparison between Communities of Practice and other Organisational Structures

Source: Wenger E¹⁹⁸

2.3 Distributed and Virtual Communities of Practice

A distributed community is:

*any community of practice that cannot rely on face-to-face meetings and interaction as its primary vehicle for connecting members.*¹⁹⁹

¹⁹⁷ Wenger E. 1998a. 4-5.

¹⁹⁸ Wenger E. 2000. 142.

¹⁹⁹ Wenger E, McDermott R, Snyder WM. 2002. 115.

Distributed communities stretch across multiple types of boundaries. They can be geographically distributed and in the process connect people from different time zones, countries and organisational units.²⁰⁰ Distributed communities are virtual communities and

*its members use ICT as their primary mode of interaction.*²⁰¹

This enables collaboration across geographical barriers and time zones. Traditional communities are dependent on location, and membership is acquired according to certain norms. Individual expression is often subject to group dynamics. There are clearly defined boundaries between membership and it is obvious who are members and who not. Distributed communities, on the other hand, have to do with the identification of ideas or tasks rather than location. Distributed communities do not require boundaries and their boundaries are therefore vague. Due to the fact that there is little or no face-to-face contact between members, norms are not as dominant as in traditional communities and that allows for greater individual control.²⁰² Distributed communities, like traditional communities, share ideas and insights, support each other, create documentation and influence teams and business units in the organisation. Communities with distributed members can fulfil a valuable role as the connectors between the business units of geographically dispersed organisations. In the era of the knowledge economy, globalisation and wide-reaching communication networks, distributed communities of practice are progressively becoming the norm.

All communities of practice are distributed in some way or another. Communities can typically originate from various departments of an organisation, or from different locations. What distinguishes distributed communities is that they involve the linking of a large number of people across considerable distances, different cultures and major organisational boundaries. That presents challenges of its own.

2.3.1 Distances: Connections and Visibility

If communities of practice exist across different time zones and geographical locations it makes more difficult for members to connect and interact. They are then dependent on technology, which could never be a real substitute for face-to-face contact. Given the physical distance between members of a distributed community members may invariably feel more removed from the community. In fact it may be difficult for them to feel that the

²⁰⁰ Wenger E, McDermott R, Snyder WM. 2002. 116.

²⁰¹ Dubè L, Bourhis A, Jacob R. 2005. The impact of structuring characteristics on the launching of virtual communities of practice. 147.

²⁰² Johnson CM. 2001. A survey of current research on online communities of practice. 51.

community exists at all. In local or traditional communities it is much easier to meet in order to share ideas and collaborate, even for those who are only marginally involved. Where community members for instance reside in the same building they can easily meet by chance in elevators, meetings or the cafeteria. To the members of a traditional community their community often feels more real than in the case of a distributed community.

Presence generally seems less obvious to distributed communities. Members are only visible on a web site or conference call when they make a contribution. It is not possible to see who is reading or observing a threaded discussion unless they interact. In face-to-face meetings there are more opportunities for informal networking than on teleconferences and web sites. These barriers require members to put in much more intentional effort to seek advice from the community, spontaneously share ideas and insights and network with other members.

2.3.2 Size: Knowing people

Geographical distribution and community size are not necessarily related. Global communities can be very small and local communities large. But, because global communities are normally drawn from a wider audience, they can be huge. They may have hundreds or even thousands of members. To create personal relationships between all members is impossible, and neither the hosting of face-to-face meetings nor the mediation of technology makes it easier. Size and distance have large implications on how communities structure themselves.

2.3.3 Affiliation: Priorities and Intellectual Property

Distributed communities normally span across more organisational boundaries than local communities. They can exist across divisions or business units of the same company or across different business or industries altogether. Even when communities exist within one organisation they have their own goals and priorities, which are sometimes in conflict with those of the organisation. In the case of large global communities it is often more difficult to persuade management with conflicting priorities to buy into sharing knowledge with other companies or business units. What may be a partner on one side of the globe can be competition on the other. What complicates all of this is the issue of intellectual property and the need to develop criteria to deal with it. This is specifically true for communities that cross different organisations and where intellectual property is a source of competitive advantage. The question arises whether all ideas and material developed by the community should belong to all members and also if individual companies are free to do with the material what they want. To resolve these kinds of questions may take up some time and planning upfront

before a community is launched. One solution may be to get agreement from members to only share knowledge that would not be to the detriment of their own company.

2.3.4 Culture: Communication and Values

Distributed communities, more often than not, also cross cultures. This does not only include national cultures but also organisational and professional cultures that can create problems in diversified companies. The fact that people come from different cultural backgrounds, speak different languages and have different ways of interacting with each other and the community has a large impact on the development of global communities. Behaviours like disagreeing with someone in public, discussing problems or revealing ignorance through the kind of questions they ask, vary across different cultures.

Cultural differences can complicate communication and that can lead to misinterpretations. Wenger illustrates this by example of a merger between an American and European company where it became obvious that people had different interpretations on approaching meetings. The Europeans came to meetings well prepared with a structured agenda and compiled documents that were prepared in advance. The Americans on the other hand would construct an agenda at the meeting. Consequently the Europeans came to think that they were lazy and did not do their homework. Conversely the Americans took the well preparedness of the Europeans as a sign that they wanted to take over.²⁰³ The challenge to distributed communities is to address cultural differences in such a way that no one is minimised or stereotyped.

Language can also create a barrier in communication. Even when there is agreement on a common language within the community, language can still enforce cultural boundaries. Members who are non-native speakers of the language may not recognise and understand the nuances and connotations behind certain expressions. If they feel unable to express themselves properly in the common language of the community they may be hesitant to speak. This can become more complex if the conversation is a telephonic one. Non-native speakers often feel more comfortable with written computer-mediated conversations. They then have the opportunity to revise their text before contributing.

Another barrier to communication can be access to technology. Communication in the community is dependent on members being connected. If there are any problems with the basic technological connection people are less inclined to make the effort to communicate on

²⁰³ Wenger E, McDermott R, Snyder WM. 2002. 118-119.

a regular base. This can contribute to the very inertia that the community needs to overcome in the case of a distributed community and iterates the importance of the community delivering real value to its members.

2.4 Communities of Practice: The Challenges

*Communities of practices, like all human institutions, also have a downside. They can hoard knowledge, limit innovation and hold others hostage to their expertise. The medieval guilds, for instance were fortresses as much as they were stewards of knowledge. They focused as much on the interest of who benefited from the status quo as on innovation in their practice. When some guilds started to make membership a right that was inherited from father to son, they became almost impossible for others to enter.*²⁰⁴

In addition to the above it is also true that communities can reflect the rigid, unfair prejudices of society. In the era of apartheid in South Africa black people were denied access to the scientific communities and thus to the opportunities for research and knowledge sharing. Communities of practice are not silver bullets. They are not able to solve all problems without creating new ones.

2.4.1 Single Communities and its Challenges

The most common problem in a community of practice is that the community is just not functioning well. It may be a case of the community not unlocking the passion that is required from members. Or there are trust issues that prohibit members to connect. Problems also arise if the practice remains stagnant. These are all basic issues that occur when fundamental design principles are not followed.

Problems in the community may also occur at a much more subtle level that reflects the frailty of the community's members. Because communities are composed of people this potential is inherent to all communities. It frequently happens that disorders actually arise in areas as a result of communities that are functioning too well. The intimacy within a community can create a barrier to newcomers, a blinder to new ideas and reluctance among members to criticise each other. Disorders in communities are often their strengths driven to an extreme. As much as a community is an ideal structure for learning these very qualities can hold it hostage to its history and achievements.

²⁰⁴ Wenger E, McDermott R, Snyder WM. 2002. 139.

2.4.2 Domain: The Temptations of Ownership

A community's pride of ownership can sometimes be detrimental especially if arrogance sets in. Members may have such an exclusive sense of ownership that they ignore the perspectives of other external parties in their day to day work. If people are viewed as experts in their domain they can easily fall into the trap of thinking they know all there is to know. Arrogance about knowledge can cause the community to hoard knowledge from other communities and even from the organisation as a whole.

Imperialistic communities have a passionate belief that their perspective is the only right one and therefore they close themselves to alternative views, external experts or new methodologies. What they need is exposure to external expertise and perspectives in real life challenging situations that go beyond their domain. They must face problems that require a multiplicity of approaches in order to be resolved. Other disorders originating from domain-related excesses and failures also concerns the human dimension are narcissism, marginality and factionalism.

A *narcissistic* community is one that is overly concerned with itself. Any successful community takes pride in the integrity of its speciality, but this can be pushed to an extreme. They have little concern for what a team or business unit may require in terms of expertise or capability and only push their own agenda. These communities often lack direct exposure to customers or the market.

Marginal communities are ones that are not part of the mainstream activities of the organisation or are excluded from the organisation's decision-making power. Members of these communities are strongly bound by a sense of discontent and this causes a lack of effectiveness and motivation to initiate change. To make their cohesion constructive these communities need to be brought into involvement in the organisation by giving them visible responsibilities.

Factional communities are ones that are torn by individuals or factions fighting for their own viewpoints, interests or approaches. Members in these communities push their strong commitment to their domain to an extreme. They are more concerned with emphasising differences between themselves and others than building the practice of the community.²⁰⁵

²⁰⁵ Wenger E, McDermott R, Snyder WM. 2002. 140-144.

2.4.3 Community: Too Much of a Good Thing

The term *community* is a somewhat problematic one because of the connotations it traditionally has. Traditionally a community is viewed as a cosy warm place of comfort underpinned by a common understanding.²⁰⁶ In the *community of practice* approach a community is not seen as a haven of peace and goodwill. Communities depict the complexities of humanity - its strengths, weaknesses and intricate interrelationships. Conflict, jealousy and intrigue are essential components that are even part of successful communities. However, the bond between community members may become so tight that it becomes toxic and make it impossible for newcomers to enter. In these communities members may be pushed into behaving in ways that would shock outsiders. That is what gives rise to mobs that would burn a witch or guillotine an aristocrat. Communities should caution themselves against becoming so cosy that they are completely closed to external input and exploration beyond their boundaries.

A *clique* is formed when relationships between community members are so strong that it dominates all other concerns. In a cliquish community there is normally a powerful core group that acts as a domineering gatekeeper. The community can become exclusive either by intent or unintentionally due to the tightness of their relationships and unwillingness they become reluctant to accept new members

Cliquish communities have a tendency to stagnate. In extreme cases the social atmosphere of friendship becomes so important that members do not critique each other or don't involve themselves in achieving a deep understanding of their domain. The community can become locked in a defensive solidarity with the aim of to protecting each other from challenges. The remedy for a cliquish community is to accommodate new blood, people who are not overly involved in the internal relationships and who can open the minds of the community members to new possibilities and perspectives.

There are other community disorders that also stem from excesses or failures in creating a sense of community:

Egalitarianism. In this kind of community there is a culture of equality where nobody is supposed to stand out. It becomes a problem to the community if members take risks or become involved in activities in such a way that they are distinguished from the rest of the group.

²⁰⁶ Roberts J. 2006. Limits to Communities of Practice. 632.

Dependence. A group may become too dependent on a leader or coordinator, especially if leadership and responsibilities are not well spread. If such a person leaves it can cause a disruption in the community. With strong leadership some voices in the community can be silenced, which will result in less diversity of perspectives within the group.

Stratification. Part of the success of a community is the existence of an active core group. This group should however not be too distant from the rest of the participants or else distinct classes of membership can develop. That may prevent the community from developing a common identity. The spread of leadership roles will assist reducing the risk of stratification.

Disconnectedness. One danger of large communities is that they may well become too diffused or dispersed to actively engage members. In that case the sense of identity in the community will remain a superficial one. Many members may be involved in the group but not honour their commitments to the community and contribute to any sense of enthusiasm or enjoyment. In disconnected communities interactions are treated as simple transactions. Members need to engage in joint activities that bond them beyond specific exchanges. This will help them to build a meaningful sense of identity.

Localism. Sometimes a community gets caught up within the boundaries of geography, companies or departments. This affects their ability to transcend borders and develop the range, intensity and diversity of connections required to maximise the synergy between people and groups. These communities should move to a stewarding stage where boundary expansion can be seen as part of caring for their domain.²⁰⁷

2.4.4 Practice: The Liabilities of Competence

*A shared practice is a liability as well as a resource. The cognitive and communicative efficiency it affords has a cost.*²⁰⁸

When doctors discuss patients they use medical language and experience the sharing that helps them to quickly drill down to the core problem. When a few symptoms are described they can immediately start drawing up some hypotheses. Although this shared language is very efficient for doctors, it is difficult for patients to understand. Efficiencies such as shared language can result in barriers to outsiders as well as boundaries isolate experts or practitioners on the inside of the community. There is a danger that patients become mere medical objects to doctors and they may be blinded to other aspects of a patient's illness. The

²⁰⁷ Wenger E, McDermott R, Snyder WM. 2002. 144-146.

²⁰⁸ Wenger E, McDermott R, Snyder WM. 2002. 147.

cost of an efficient practice is not only about communication with outsiders, but it can blind practitioners to seeing what fits in their paradigm and what not. The practice of a community can be a hindrance to its own development.

Documentism. Documentation is a necessary part of a community and successful communities document their ideas, insights and procedures. Information gets organised into a repository or database to improve its accessibility to members. If pushed to the extreme members may become so preoccupied with documentation that it becomes a purpose in and of itself. Documentation must be filtered and organised to be really useful. Even though documenting is part of building a practice, a community may become defined by its documentation. All the papers, memos and website and its creation can start inhibiting relationship building or collaborative problem solving. Documentism transforms the community into a

*junkyard stockpiled with potentially useful but inaccessible information. It is a consequence of thinking that documents are the main source of value of the community.*²⁰⁹

Communities need to identify what documentation is required to fulfil their purpose and manage that documentation well. Documentation cannot stand on its own, it needs to be integrated with knowledge sharing and joint problem solving activities. The development of documentation should not be allowed to hinder the development of a community's practice. Other issues that arise around failure to develop and deepen the practice over time include amnesia, dogmatism and mediocrity.

Amnesia is the flip side of documentism. Some communities focus on the discussions of member problems and do not document the insights they develop. The result of this is that they repeat their discussions when similar issues arise and this causes members to feel very unproductive. The documentation of questions and insights should be coordinated by a community coordinator to ensure that community activities stay cumulative.

Dogmatism has to do with blind respect for authority. This can happen in a community where there is such a strong sense of competence that they have an excessively rigid commitment to established standards and procedures. The community is no longer open to change and refuses variation and may even delight themselves in using specialised knowledge and jargon that others cannot understand. To make the community more adaptable it is wise to bring in thought leaders to guide them into being more flexible.

²⁰⁹ Wenger E, McDermott R, Snyder WM. 2002. 148.

Mediocrity typifies communities where there is no desire to be cutting edge, especially if there is not enough knowledge to lift members' standards. The community's practice should constantly be built up and grown by members engaging in learning and innovation activities. Benchmarking can also be useful to push the community out of mediocrity.

2.4.5 What can go wrong in Constellations of Communities?

*Communities of practice do not exist in isolation.*²¹⁰

The health and effectiveness of a community is not only dependent on its internal activities but also on its interactions with other communities and constituencies. Problems arise not only in single communities but also across the constellations of communities within and beyond organisations.

By sharing a practice and deepening their expertise communities naturally create boundaries. These boundary lines can be drawn by all three elements of a community of practice.

*Different domains entail different interests, perspectives, perceptions of value and sources of excitement. Membership in different communities makes trust more difficult. Different practices entail different vocabularies, styles, sets of experience and standards of performance.*²¹¹

These boundaries are not necessarily formal, they are often implicit, but they are important nonetheless. In the company of high-energy particle physicists it is easy to pick up the boundary, not because one is excluded but because it is so difficult to understand what they are talking about.

Boundaries of practice lead to two challenges in managing knowledge in organisations. Knowledge *sticks* to practice and is therefore difficult to move within an organisation, but since it also *leaks* through practice channels it might be a problem to keep it within organisational boundaries.

Stickiness. In their stewarding of knowledge, communities often develop technical jargon, specialised processes, methods and environments that are customised to their requirements. All of this creates boundaries to outsiders that are difficult to cross. These barriers often lead to miscommunication that is founded by different identities, language, purpose, perspectives,

²¹⁰ Wenger E, McDermott R, Snyder WM. 2002. 150.

²¹¹ Wenger E, McDermott R, Snyder WM. 2002. 151.

mistrust or professions – *a different way of being in the world*.²¹² Knowledge tends to stick to practice in many ways.

Leakiness. Institutional boundaries do not limit the boundaries of communities of practice. Some communities exist primarily across the boundaries of departments within one organisation. Multimembership that connects teams within an organisation can also be extended beyond the organisational walls. As effectively as communication is able to flow within and throughout the organisation, just as easily can it *leak* out across the organisational boundaries. Firms that are in alliance can in fact often gain knowledge faster from practitioners they know in other companies than from co-workers in other departments within the same organisation. Practices that cross organisational boundaries provide channels that allow for the sharing of information and ideas insightfully and efficiently, thereby easing the *leaking* of knowledge.

Managing of boundaries. Communities of practice cause knowledge to become *sticky* and *leaky* simultaneously. Where knowledge does not easily cross the boundaries of practice, it flows easily within the practice regardless of the boundaries that exist. These risks of stickiness and leakiness need to be accepted and managed since they are unavoidable. Close attention must be paid to boundaries to avoid the problems that they pose and take advantage of the opportunities they offer.

People often have a negative perception of boundaries, connecting them to limitations and exclusion. Even though they may cause difficulties, boundaries are also sources of new opportunities and they should thus be well understood. If members interact across practices it forces them to challenge their own assumptions. So the crossing of boundaries can enable a deep kind of learning. Even though the core of a community is the locus of expertise, it is often at the boundaries with other communities that new ideas and insights occur.

*Boundaries are insights in their own right.*²¹³

Since the problems of the current environment are complex and cannot be confined to one community or even one organisation, solutions frequently require boundaries to be crossed. Boundary interactions are however, not always encouraged in organisations. Due to the fear of leakage, managers view the interactions with peers in other organisations as suspicious. Despite that organisations do normally benefit from informal interactions with their peers in

²¹² Wenger E, McDermott R, Snyder WM. 2002. 151.

²¹³ Wenger E, McDermott R, Snyder WM. 2002. 153.

other firms. To interact with peers, organisations should develop procedures to guard against leakage but should still make enough information available to enable communication and learning.

Boundaries of communities should receive as much attention as the core to ensure that there is enough activity to eliminate fragmentation and enhance learning. There are different forms of connections that are able to enhance boundary activities: projects that are shared between different domains, knowledge brokers or translators with membership in several communities and boundary objects that can be utilised across practices (e.g. documents, templates or contracts).

The crossing of boundaries places a large premium on trust both internal to the community and as well as on sustained boundary interactions. A tension exists between core and boundary interactions. Once a community's core and boundaries evolve in complementary ways, meaningful expertise is developed on the inside and there is continuous renewal at the boundary. Only then does the community of practice become a true knowledge asset. The learning potential of an organisation is largely dependent on the balancing act between well developed communities and effective boundary management.

2.4.6 Organisations: What Can Go Wrong?

Communities of practice do not develop in isolation and they are normally part of the organisational context. As much as communities of practice can have a negative impact on organisational learning, the organisations they are part of can just as easily hinder their development.

*Organisations can be irrational, counterproductive, political and rampant with suspicion and conflicts.*²¹⁴

Organisations are designed to hold people accountable for short-term, local and individual results, which are not the optimal environment for a community of practice. There are two kinds of disorders that influence communities at the organisational level. The first is recurrent disorders that communities have to deal with. Secondly, some specific organisational problems that include things like the risk of rigidity or increased organisational complexity, may even be magnified by the focus on communities of practice.

²¹⁴ Wenger E, McDermott R, Snyder WM. 2002. 154.

Addressing organisational barriers. Like other organisational change initiatives communities of practice are also subject to organisational barriers. This largely affects their ability to steward knowledge. If the barriers become too strong they can cause learning problems in the whole of the organisation. In some cases the community may absorb the organisation's problems and that can become a disorder within the community itself.

There are various kinds of recurrent organisational problems. *Irrational politics.* When there is a breakdown in knowledge sharing due to destructive warfare between business units and teams, communities of practice are often caught up in the middle. Knowledge is then used as a political football between divisions with different strategic visions or managers with ambitions and conflicting career aspirations. In organisations with a great deal of politics communities of practice may be subject to factionalism through internal conflicts that reflect the tensions of the organisation. *Short term focus on tangible outcomes.* In the absence of a powerful strategic vision on what communities can achieve in support of strategic priorities, members are forced to focus on accomplishments that could easily be included in formal evaluations (e.g. technology or documentation). This may not even correspond to their view on what the priorities actually are. Myopic pressures from the organisation can result in community disorders such as documentism or mediocrity. *Anti-learning culture.* Learning, reflection and knowledge sharing will be stifled in an environment when value is placed exclusively on individual tasks and achievements. Even policies and infrastructure can inhibit participation. In these circumstance communities of practice may easily become marginalised. The result of marginalisation being that their very existence is constantly questioned and serious limitations placed on their effectiveness.

Communities cannot counter the disorders that stem from the organisational environment on their own. They need support and commitment from senior management to resolve political issues, set priorities and optimise organisational systems.

When knowledge is organised into communities there is always the risk of *rigidity*. It is a macro type of dysfunction that is caused by disorders at the level of core practices in the organisation. A practice is similar to a scientific theory and is developed over time, gaining momentum and value as problems are solved. Theories are generally hardy to disconfirming data and its advocates will find various explanations to for exceptions. In that way the theory grows and may even become stronger. The patching of a theory can become problematic though and may create more problems than what it solves. It then becomes a liability. On the other hand, if the theory becomes stronger it can become difficult to recognise when it

becomes obsolete. In the same way, communities of practice can become so solid that it is impervious to signs of changes. Giving up the theory is understandably difficult if the community is successful and members have tight relationships. The resultant inertia can be amplified by community members reinforcing each other's perceptions and it can become a collective problem. In addition to this, the communities whose contributions play a critical role in the execution of a successful strategy in an organisation gain prominence. However, this prominence can once again give rise to inertia. Communities can become reluctant to take perspectives of other communities into account. Behind any capability there is always the possibility of *rigidity* lurking.

*Communities of practice can also be a remedy for rigidity because the same dynamic works both ways.*²¹⁵

When inertia is deeply entrenched in a social structure it is challenging to overcome. It is difficult to change your view of a problem if there is a whole community behind you sharing the same perspective. Conversely, the community creates the capacity for organised change far beyond the potential of any one individual. If the community forms a collective identity around change it is far easier to motivate and facilitate individual transformation. Given a sense of dynamic enquiry and a dependence on competence, quality and relationships with their environment, communities of practice are actually a superior mechanism to overcome inertia.

Managing complexity. Communities of practice bring about a new level of complexity, and although this complexity poses a challenge to the limits of the organisations, it is also of great value. Having a constellation of communities with multiple interrelated practices provides organisations with the requisite variety to remain agile and adaptable in a complex world. However, this poses some managerial challenges. Because communities create multiple centres of power based on knowledge, their contribution to organisational complexity is much larger than other knowledge approaches. Strategy and decision-making requires the consensus of disparate groups of people in the organisation. Due to such diversity and complexity, a knowledge organisation is much more of a challenge to manage than the traditional organisation. Communities of practice invite complexity. Organisations need to ensure that they have or develop the necessary managerial capabilities to deal with this complexity. They should pace their progress of integrating the voice of communities into the

²¹⁵ Wenger E, McDermott R, Snyder WM. 2002. 157.

organisation and not run ahead of their capacity to do so. Not all of this complexity has to be integrated with the formal organisation:

*Companies have to resist two temptations: to shy away from this new complexity and revert to traditional control processes now applied to communities; or instead, to bring all this complexity into the formal system. Rather they must allow the complexity of the informal to mesh with a manageable formal system.*²¹⁶

2.5 Conclusion

In this chapter the dynamics of communities of practice as major forces in the knowledge management arena were discussed. It can be concluded that, although communities of practice are not the silver bullet, they are critical in the execution of knowledge management strategies of organisations. Organisations should leverage these complex, self-organising structures to deal with the challenges and complexities of the knowledge economy. Communities of practice are sources of innovation, problem solving and thought leadership and they can make a significant contribution to the management of knowledge as a competitive advantage.

Organisations should treat communities of practice as a modern form of organisational structure and not suffocate them with canonical procedures. These spontaneous knowledge structures need space to develop and self-organise and must be nurtured to fruition. Care should be taken to not marginalise them but rather support them by means of time, funds, infrastructure and rewards. Knowledge developed by communities of practice should be to and disseminated and applied throughout the organisation to realise their optimum benefits.

Since the application of the concept of communities of practice in organisations has come to the forefront fairly recently there are several directions for further research emerging. If it is accepted that the broader socio-cultural environment will impact on the success of a community of practice as part of a knowledge management strategy, a comparative study of communities of practice in very different socio-cultural environments should be conducted. A second possible area for research falls within the organisational context. This evolves around the question of how communities of practice interact with formal organisational structures and in which organisational contexts communities of practice would be the appropriate knowledge management tool? And if the boundaries of communities of practice do not reflect

²¹⁶ Wenger E, McDermott R, Snyder WM. 2002. 158

organisational boundaries, the interaction between formal organisations and extra-organisational communities of practice should be investigated.²¹⁷

Although communities of practice have challenges and weaknesses of their own, it is clear that its strengths necessitates its inclusion in any knowledge management approach.

*Communities of practice are the heart and soul of the World Bank's knowledge management strategy. Some communities of practice have existed for years at the bank, but they were mostly small and fragmented. That has changed now that the bank has made knowledge management the key to its goal of becoming the "knowledge bank" – providing high quality information and know-how about economic development*²¹⁸

²¹⁷ Roberts JR. 2006. 636-637

²¹⁸ Snyder WM, Wenger E. 2000. 140.

Chapter 3

Communities of Practice as Sensemaking Phenomena

3.1 Introduction

Communities of practice are traditionally seen as groups of people interacting within and across organisational boundaries around a shared practice within a specific domain. Communities of practice are evolving, selforganising systems with porous boundaries, and are less formally structured than traditional organisations. They are typically viewed as stewards and incubators of knowledge, who engage in joint situated learning.

Sensemaking is triggered when there is an interruption of the ongoing flow of experience and people are faced with ambiguity and uncertainty that they have to make sense of to instil order in their world. Sensemaking involves identity, retrospect, enactment, social contact, ongoing events, cues, and plausibility.²¹⁹

Meaning is central to both the concepts of sensemaking and communities of practice. Wenger highlights the negotiation of meaning as a core activity in the development of a community's practice. He argues that

*the social production of meaning is the relevant level of analysis for talking about practice.*²²⁰

In addition, Weick sees meaning as being constructed in and delivered as the output of the sensemaking process.²²¹

From the sensemaking point of view it is clear that learning can only take place once members of a community of practice have made sense of the events or disruptions that they encounter. The question arises whether more sensemaking opportunities present themselves in communities of practice and how these communities look when viewed from a sensemaking perspective.

²¹⁹ Weick KE. 1995. 3.

²²⁰ Wenger E. 1998b. 49.

²²¹ Weick KE. 1995. 5.

3.2 Sensemaking Properties of Communities of Practice

To construct a sensemaking view of communities of practice, they are explored in the context of the seven properties of sensemaking.

3.2.1 Identity Construction in Communities of Practice

..identity exists – not as an object in and of itself – but in the constant work of negotiating the self. ²²²

From a sensemaking point of view, the construction and maintenance of identity is a core preoccupation²²³ for the members of a community of practice. Identities are established in the processes of social interaction, and mutual engagement in practice. On an intrapersonal level members are continuously challenged with identity issues due to the prevalence of engagement, discourse, and sharing of different ideas and opinions. Wenger argues that identity is a nexus of multimembership that requires the reconciliation of identities in order to maintain one identity across boundaries²²⁴. From a sensemaking point of view it is clear that the sensemaker is never singular and actually maintains a whole *parliament of selves*²²⁵. Multimembership calls for the application of the most appropriate self in the various social interactions and structures that community members are involved in.

Communities of practice are informal social structures that continuously change as the community evolves. Members are confronted with the participation of new members with new perspectives and they need to construct an image of the newcomer's view of them and adapt their identities from the interactions they have with the new members. This in turn, influences the different selves they've created in their engagement with old timers. Newcomers have the task of creating their communal identities from scratch and that calls for intense sensemaking processes. Community members' needs for self-enhancement, self-efficacy and self-consistency remain under pressure as they are exposed to other people from different organisational structures with different experiences and beliefs.

In a community of practice there are no formal roles and job descriptions that can form part of a member's definition of identity. This fluidness adds to complexity and allows for sensemaking opportunities around the redefinition of self and the projection of that self onto the world to determine what is going on out there.

²²² Wenger E. 1998b. 151

²²³ Weick KE. 1995. 20.

²²⁴ Wenger E. 1998b. 158.

²²⁵ Weick KE. 1995. 18.

Collective identity construction is key to communities of practice as they face images of them being reflected or mirrored back to them from the external world. The domain of a community guides learning and is what brings people together in the first place. In this sense the identity of the community is dependent on the importance and standing of the domain in the world.²²⁶ To maintain this place in the world the domain continuously evolves and creates a need for identities to be modified. Identity is therefore seen to be a mutable continuous variable rather than a stable enduring concept.²²⁷

Identity changes are regularly called for in communities of practice and this is enhanced by the fact that communities are directly exposed to both formal and informal organisational structures at the same time. Therefore their identities are built through interactions and reflections of not only the community members, but also different departments within their organisation, other communities, and even various organisations, if the community spans across organisational boundaries. Identities are always an interplay between the local and the global.²²⁸ Wenger writes:

*we define who we are by negotiating local ways of belonging to broader constellations and of manifesting broader styles and discourses.*²²⁹

Where formal organisations are focused on revenue and the satisfaction of their stakeholders, communities of practice aim to share knowledge and remain relevant to their organisation and their domain. They strive to be recognised for their expertise and knowledge, and the perception they have of that recognition affects the sense of identity of the community as a whole as well as that of each individual member. The complex world, in which the identities of communities of practice need to be maintained, puts pressure on those identities and allows for continuous opportunities for sensemaking by identity construction.

Since the identity of a community and its members is directly related to their domain, any problems around the domain will influence sensemaking opportunities in the construction and reconstruction of identities. If the domain becomes widely recognised and entrenched, the community may become arrogant, seeing themselves as the experts and not pay enough attention to novel perspectives coming from the external environment. Similarly it can happen that a community becomes too closely knit and then closes itself to environmental

²²⁶ Wenger E, McDermott R, Snyder WM. 2002. 31.

²²⁷ Weick KE, Sutcliffe KM, Obstfeld D. 2005. 416.

²²⁸ Wenger E. 1998b. 163.

²²⁹ Wenger E. 1998b. 149.

inputs. These kinds of problems reduce sensemaking opportunities since identities are not challenged or influenced sufficiently to optimise sensemaking processes. The reduction in sensemaking will hinder learning and innovation and poses a threat to the existence of the community.

3.2.2 Retrospective Sensemaking in Communities of Practice

The practice of a community is about a set of frameworks, ideas, tools, information styles, language, stories and documents that community members share.²³⁰ They engage in their practice to solve problems, develop new insights and share tacit and explicit knowledge. Community members have to make sense of all the knowledge and processes that they are exposed to before any learning can take place. They don't make sense while they learn, it is only afterwards that they realise that they have learned. This is due to the retrospective nature of sensemaking. Members bring their *meaningful lived experience* into the community where the *lived* indicates that they are only sharing it after it had happened²³¹.

The experiences that members share in a community of practice seem like distinct episodes of experience. However, by nature, experience is a singular continuum. It is not separated into different parts. Certain moments in that stream of experience are extracted by focusing attention on them, thereby giving them the appearance of being separate and distinct events by community members stepping out of the pure duration of experience and focusing attention back onto a certain part of it. Attention can only be focused on something that has occurred in the past. In order to draw this into the equation, community members step out of the pure duration of experience and focus attention back onto those specific parts or events.

*The act of attention – and this is of major importance for the study of meaning – presupposes an elapsed, passed away experience.*²³²

Having extracted the events or parts retrospectively, community members use storytelling as an important way of making sense of the experience and further sharing knowledge within communities. Community members will listen to the stories that are told as part of the community's practice and perceive that they make sense of the story as it unfolds. This is true, but they only make sense of words or phrases once they have been spoken. Even if it is a

²³⁰ Wenger E, McDermott R, Snyder WM. 2002. 29.

²³¹ Weick KE. 1995. 24.

²³² Weick KE. 1995. 25.

time-lapse of only for a fraction of a second, the words are already in the past. Hence, they are only making sense of the story in retrospect.

Stories are told as recollections of parts of lived experience and members listening to these stories assume they are accurate. But from sensemaking theory we learn that anything that affects memory or anything that is occurring in the here and now will have an impact on the remembering of the story. The context in which the story or knowledge is shared impacts both the meaning that the storyteller attaches to it as well as the sense that the community makes of what is shared with them. If a problem has to be solved a relevant experience will be shared but the meaning will be adapted to shed light on the topic under discussion. If, through discussion in the community, the definition of the problem changes, a different meaning may be attached to the knowledge that was shared. The story or experience therefore does not have only one specific meaning attached to it, but meaning is derived from the kind of attention directed at it in that specific context.

*No lived experience can be exhausted by a single interpretive scheme.*²³³

Communities of practice regularly engage in problem solving activities and it is in discussing problems and arriving at solutions that the retrospective nature of sensemaking is once again apparent. When a community member encounters a problem and someone shares information from a previous experience of a similar problem, they are contributing in hindsight, and the outcome is already known. In this process a great deal of causal information can be left out and as a consequence, the history of the problem will be recalled as being much more determinant of the outcome than what was in reality the case. This may cause inaccuracies that impact the resolution of the problem or dilemma at hand. If the solution to a problem is found through the discussion between members, community members are not aware of the solution being at hand until after it has happened. They don't realise that a problem had been resolved until they look at it in hindsight.

Sensemaking theory states that retrospective sensemaking only takes place until there is a *feeling* of order, clarity and rationality. That is one of the goals of sensemaking.²³⁴ The assumption is made that the greater the number of different opinions and experiences raised during the sensemaking process, the longer the sensemaking process will last.

²³³ Schutz A. 1967. *The phenomenology of the social world*. 85.

²³⁴ Weick KE. 1995. 29.

In a structured organisational environment where power plays a large role, many people do not feel free to raise their opinions in meetings and discussions. Communities of practice however embrace discourse and discussions, and if the community is a healthy one, members' sense of belonging makes them feel safe enough to voice their opinions and perspectives. Order and clarity in formal organisations are driven by common goals and objectives. Communities of practice however, are selforganising systems bound by their domain rather than organisational structures and goals, and their sensemaking processes can take longer to reach the point where they have a feeling of order, clarity and rationality. The synthesizing of experiences in prolonged retrospective sensemaking should have a positive impact on the level of knowledge that is generated.

3.2.3 Enactive of Sensible Environments

Weick uses the word enactment to portray the fact that people are partly responsible for the environment they are faced with.²³⁵ This is particularly true in the case of communities of practice. They exist in and across organisations, other communities and groups, and they aim to influence the environment that they are an integral part of and then make sense of it.

Members bring input from the environment to their community where it is acted upon through sharing and debating. As part of their practice they also act by developing stories, presentations, documents and other artefacts. These are fed back into the environment. The effect of it is observed and evaluated. In acting, members' thoughts towards the issue change and that in turn influence their actions. Their reifications are fed back into the environment and they observe the effects that these reifications have. Those observations once again have to be made sense of. The enactment process is therefore a circular one and in its course of events new knowledge is created and learning takes place. Through their enactment on their environment communities of practice make their world more sensible to themselves.

3.2.4 Social Sensemaking in Communities of Practice

Sensemaking is a social process where conduct is contingent on the conduct of others. The other can be physically present or their presence can be imagined.²³⁶ This property of sensemaking is very prevalent in communities of practice where interaction, participation and mutual engagement are inherent to all communal activities.

²³⁵ Weick KE. 1995. 30.

²³⁶ Weick KE. 1995. 39.

*Communities of practice are the prime context in which we can work out common sense through mutual engagement.*²³⁷

The practice of a community does not exist in the abstract due to the fact that members are engaged in actions that they make sense of and whose meanings they negotiate with each other. The mutual engagement of participants is what defines a community.²³⁸

A characteristic of practice as source of community coherence is the negotiation of a joint enterprise.²³⁹ The negotiation process displays the full complexity of mutual engagement and cannot take place without the social aspects of sensemaking. Mutual engagement does not require homogeneity and consequently a joint enterprise does not seek agreement in any simple way. The enterprise is joint in the sense that everybody is not necessarily in agreement but the community's enterprise is communally negotiated.

*An enterprise is a resource of coordination, of sense-making, of mutual engagement; it is like rhythm to music.*²⁴⁰

In the same way that rhythm is part of music, the enterprise is part of practice.

Through socialisation knowledge is shared, new knowledge created, and learning enabled. Socialisation can take place on a face-to-face basis or community members can interact virtually where others can be implied or imagined. Members make sense and create meaning through conversations with each other. In the case of distributed communities interaction is generally via text such as email or websites, but social sensemaking happens nonetheless. What affects the social sensemaking activities in distributed communities is the fact that the nuances of face-to-face interaction are lost. This may place a limitation on sensemaking opportunities.

Decisions in a community of practice are not made on an individual base but rather with the assumption that the decision has to be accepted by the majority of members. This acceptance is hardly ever without conflict, argumentation and debate that create the necessary arousal for sensemaking to take place. Decisions and reifications of practice cannot be completed without restoring order through sensemaking activities. Members actively shape each other's sensemaking processes and in the same process meanings are also shaped.

²³⁷ Wenger E. 1998b. 47.

²³⁸ Wenger E. 1998b. 73.

²³⁹ Wenger E. 1998b. 77.

²⁴⁰ Wenger E. 1998b. 82.

Communities of practice develop novel ideas mainly through the sensemaking that occurs in their engagement with other members. Through social interaction sensical, innovative ideas or theories are spread to the organisations or other communities that members are part of, and there sensemaking continues.

Part of the sensemaking process involves community members adapting their cognitive maps by using the knowledge, thoughts, stories and insights that are shared with them. This happens even in the case of one-way communication.

It is in the socialisation process that the exploration of sensemaking takes place. Lave and Wenger²⁴¹ argues that socialisation is a process that resembles apprenticeship and thereby retains a focus on the social setting of communities of practice. Newcomers learn and make sense through this social process of apprenticeship. To move from the periphery to the core of the community members need to makes sense and express themselves in the language and ways of doing of the community.

The invention of meaning is an active part of sensemaking in communities of practice; the meaning part however, does not necessarily have to be shared by members. What is crucial for collective action is not shared meaning, but the sharing of collective action itself.²⁴² Although meanings do not have to be shared, they must be aligned.

*Alignment is no less social than sharing. But it does suggest a more varied set of inputs and practices in sensemaking than does sharing. And it keeps lines of action in clear view which [as we just saw] in the discussion of enactment, is crucial.*²⁴³

3.2.5 Sensemaking is Ongoing in Communities of Practice

In communities of practice there is an ongoing negotiation of meaning. To Wenger this is a way of living and what practice is about. He argues that the social production of meaning is the level of analysis that practice should be dealt with.²⁴⁴

*Our engagement in practice may have patterns, but it is the production of such patterns anew that gives rise to the experience of meaning.*²⁴⁵

²⁴¹ Weick KE. 1995. 41.

²⁴² Czarniawska-Joerges B. 1992. 188.

²⁴³ Weick KE. 1995. 43.

²⁴⁴ Wenger E. 1998b. 49.

²⁴⁵ Wenger E. 1998b. 52.

Meaning is created as part of the sensemaking process and sensemaking never stops. There is never one exact point at which meaning is derived; it develops within the flows of what members are busy with. It emerges out of the continuous discussions and conversations within the community.

The nature of a community of practice is such that there is a continuous flow of knowledge and experience that has to be made sensible.

*The pool of expertise enables the ongoing interpretation of new knowledge.*²⁴⁶

To make sense from these continuous flows, community members chop moments out of the flows and extract cues from those moments to make sense of what is happening in their world.

Communities keep themselves busy with problem solving, knowledge creation, learning and the development of artefacts. Within their communities, members are not primarily busy with projects. Interruptions for them will mean interruptions in the knowledge flows to, from and within the community. As is true for interruptions of projects, these interruptions will trigger arousal and therefore elicit an emotional response. Feelings signal the start of the sensemaking process.

Communities of practice are informal selforganising organisational structures. They do not normally have standard operating systems or interlocking routines that can be interrupted. Loosely coupled systems like communities of practice, are less interruptible than organisations with more formal structures and routines. As a result there would normally be less arousal and less extreme emotions due to interruptions.

3.2.6 Focused on and by Extracted Cues

For communities to build their practice they have to continuously keep an eye on the environment. They have to make sense of the knowledge and stimuli that they encounter in the context of their domain. In sensemaking terms they have to

*notice, extract cues and embellish that which they extract.*²⁴⁷

²⁴⁶ Thomas JB, Sussman SW, Henderson JC. 2001. Understanding “Strategic Learning”: Linking Organizational Learning, Knowledge Management and Sensemaking. 333.

²⁴⁷ Weick KE. 1995. 49.

Only by extracting cues from the environment do they create the opportunity for sensemaking and negotiation of meaning to occur in the community. New knowledge cannot be created without making sense of what is happening in the environment.

Different members from different organisational structures with an interest in the domain of the community all bring different cues into the community that has to be made sense of. Members bring the cues that they have extracted from their environment as reference points for discussion in the community. Through discourse and interaction the community will make sense of what they are dealing with, how it impacts them and what they can learn from it.

Communities of practice can also guide the organisations that they are part of to certain cues or points of reference of importance. Alternatively the community will make sense of cues and feed that sense back to the organisation in the form of knowledge, ideas and insights. This would be particularly true in instances where the organisation acknowledges the community for their expertise and leadership in their specific domain.

Community members generally attend to cues within a given context, and in the case of communities of practice that context is their domain. The context can be the reason that the cue was extracted in the first place. How that cue is interpreted is influenced by the context. Context can also be described as a frame:

*The concept of frame is used as shorthand for the structure of the context.*²⁴⁸

In being stewards and creators of knowledge, communities of practice must actively scan their environment to notice cues from which new meaning can be extracted and solutions, insights and ideas developed. The act of noticing means that they filter, classify and compare cues and decide what has to be attended to or would impact their community, practice or domain.

As discussed before, members of a community may become so enthusiastic about their domain or the legitimacy of the community's hold on their domain is so well entrenched in the organisation that members become arrogant. They may think that they know all there is to know and ignore external perspectives or cues that contradict their expertise. This will have an impact on the sensemaking activities and be detrimental to the creation of new knowledge and insights in the community²⁴⁹.

²⁴⁸ Weick KE. 1995. 51.

²⁴⁹ Wenger E, McDermott R, Snyder WM. 2002. 141-142.

3.2.7 Driven by Plausibility Rather than Accuracy

Weick argues that *accuracy is nice, but not necessary*²⁵⁰ and what is more important for sensemaking is plausible reasoning. Plausibility in sensemaking assumes an idealist rather than a realist ontology.

Successful communities of practice negotiate meaning, learn and create knowledge through interaction and participation using stories, metaphors, examples and symbols. This creates the ideal environment for sensemaking and consequently for innovation and problem solving.

Even though accuracy is important, a community of practice can become too pre-occupied with being accurate. Such a preoccupation can inhibit their sensemaking opportunities and their ability to attend to new points of references in their environment. Inertia can set in and cause their practice to become stagnant. A focus on accuracy can also cause the community to not respond timeously to cues and knowledge they extract from the environment. This in turn can have an impact on the agility of the organisation that they are part of.

Community members bring the cues they have extracted and made sense of to the community where it is debated, investigated and collectively made sensible. This process corresponds to what Weick describes as plausible reasoning:

*Plausible reasoning involves going beyond the directly observable or at least consensual information to form ideas or understandings that provide enough certainty...the reasoning is not necessarily correct, but it fits the facts, albeit imperfectly at times. Second, the reasoning is based on incomplete information*²⁵¹

Since the members of the community have the same basic understanding of their domain it enables them to quickly categorise events in the environment and give themselves and their organisations lead time in adjusting to these events.

3.3 Communities of Practice and Organisational Sensemaking

Communities of practice are seen as a new kind of organisational structure. The difference between them and the traditional organisation is that they are informal, self-organising and non-hierarchical. Formal organisations function according to first-, second- and third-order controls, where communities of practice are only subject to third-order control.

²⁵⁰ Weick KE. 1995. 56.

²⁵¹ Weick KE. 1995. 56.

Organisational sensemaking theory applies to communities of practice, but there are some marked differences because of the way communities are structured and how they operate.

3.3.1 Phases of Sensemaking in Communities of Practice

Because communities of practice are self-organising and organic by nature they have to be designed in such a way as to steward their evolution.²⁵²

*A system can respond adaptively to its environment by mimicking inside itself the basic dynamics of evolutionary processes.*²⁵³

From a sensemaking perspective, the basic evolutionary process is assumed to be one in which retrospective interpretations are built during interdependent interactions. Weick, Sutcliffe and Obstfeldt suggest a framework (Figure 3.1) that they call *enactment theory* and it proposes that:

*sensemaking can be treated as reciprocal exchanges between actors (Enactment) and their environments (Ecological change) that are made meaningful (Selection) and preserved (Retention). However these exchanges will continue only if the preserved content is both believed (positive causal image) and doubted (negative causal image) in future enacting and selecting.*²⁵⁴

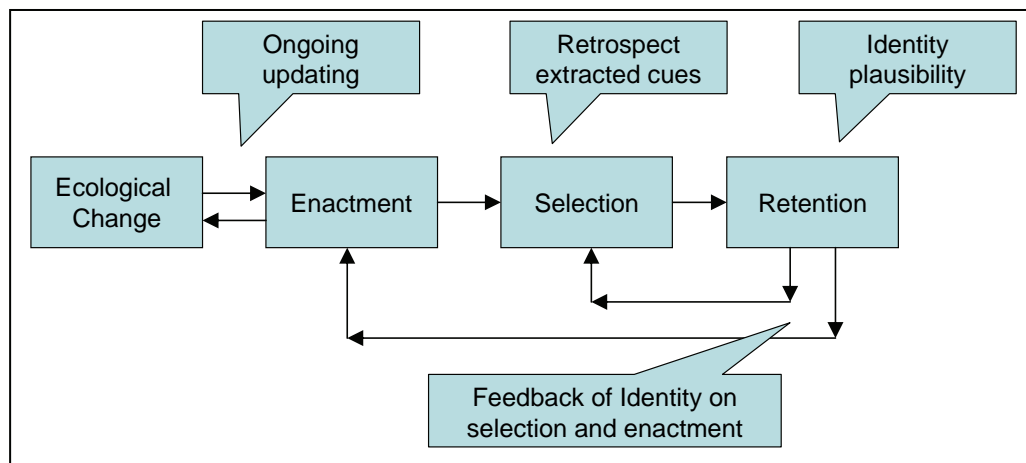


Figure 3.1: The Relationship Between Enactment, Organizing and Sensemaking

Source: Weick, Sutcliffe and Obstfeld²⁵⁵

²⁵² Wenger E, McDermott R, Snyder WM. 2002. 51.

²⁵³ Warglien M. 2002. Intraorganizational evolution. 110.

²⁵⁴ Weick KE, Sutcliffe KM, Obstfeld D. 2005. 413-414.

²⁵⁵ Weick KE, Sutcliffe KM, Obstfeld D. 2005. 414. Drawn from Jennings and Greenwood 2003; adapted from Weick 1979. 132.

Systems can only benefit from lessons learned by the ambivalent use of previous knowledge to update either actions or meanings in such a way as to adapt to the changes within the system and its context.

The process of sensemaking fits in neatly to the sequence of ecological change-enactment-selection-retention. (The results of the retention process feed back to all three prior processes). Sensemaking activities of sensing incongruence, enacting order into flux and being shaped by externalities, are included in the reciprocal relationship between *ecological change* and *enactment*. Communities of practice either sense anomalies in their environment and act on it, or enact their environment and then make sense of the cues they notice. Enactment entails the activities of noticing and bracketing discrepancies or new trends. These activities of noticing and bracketing, triggered by discrepancies and equivocality, *begin* to transform the flux of circumstances into orderliness of situations. The emphasis on *begin* is due to the fact that noticing and bracketing of the information that community members absorb are relatively crude acts of categorisation and the resulting data still has several different meanings. In the process of *selection* possible meanings get reduced. Members use retrospective attention, mental models, and articulation to perform a narrative reduction of what they have bracketed, and construct a local plausible story. The selected story is plausible though it is also tentative and provisional.

Further solidity is given to the selected story through the phase of *retention*. As a plausible story becomes retained it is likely to become more substantial because it relates to past experience, is connected to significant identities, and is used to guide further action and interpretation.

Communities of practice can play a valuable role in assisting organisations in detecting incongruence or change in the environment of their domain that will have an organisational impact. Furthermore they enact their organisational environments and observe the effects and make it sensible and decide if more action should be taken. In their enactment of the organisation communities of practice should ensure that the cues they derive from their enactments are applied to the advantage of the organisations they support. Successful communities of practice have the expert knowledge and exposure within their domain to select the appropriate meanings from the cues that were noticed and bracketed on behalf of the organisation. In the reifications that they develop, the meanings that were derived are fed back to the organisation for further sensemaking and retention. The community then once again needs to notice changes in the organisational environment and proceed with going

through the sensemaking phases again. This reciprocal process clearly illustrates the value that communities of practice can have in providing meaning (giving sense) and accelerating sensemaking processes in organisations

This close fit between the processes of organising and sensemaking illustrates how communities of practice organise themselves to make sense of equivocal inputs they encounter. It describes how they enact back on to their environment, organisations and other communities, to introduce more order.²⁵⁶

3.3.2 Communities of Practice as Natural Systems

Weick quotes Scott²⁵⁷ who describes the concept of an organisation from three different systems perspectives: a rational system, a natural system and an open system. Traditional organisations equates to a rational system where they are driven by very specific goals and objectives to have a positive impact on the bottom line and satisfy their stakeholders. Their social structures are highly formalised with clearly defined roles and responsibilities and employees are measured on their performance on a continual base. Work is largely executed by predefined procedures and processes and reporting lines are hierarchical.

Communities of practice function as natural systems in the sense that they negotiate their goals rather than having predefined goals. They are collectivities that share a common interest defined by their domain. They are informally structured and although they have leaders or coordinators, there are no formal roles and responsibilities. The activities and outcomes of the group are strongly influenced by the environment. Elements within the system are loosely coupled and this enables them to have the requisite variety to deal with the complexity of the world around them. Boundaries are fluid and the functioning of the group spans the boundaries of formal organisations.

From a sensemaking point of view natural systems should be more concerned with sensemaking than rational systems due to the fact that they have flexible boundaries. The fact that communities of practice are more open to their environment means that they have more diverse information to deal with and make sense of. As natural systems communities are concerned with processes and flows not with structure. The reifications of the community create occasions for sensemaking to

²⁵⁶ Weick KE, Sutcliffe KM, Obstfeld D. 2005. 413-414.

²⁵⁷ Scott WR. 1987. Cited by Weick KE. 1995. 69.

*define retrospectively what could have been plausible inputs and throughputs.*²⁵⁸

A community of practice is a more open system than an organisation and therefore they have to deal with more ambiguity and uncertainty. That places a larger premium on sensemaking.

3.3.3 Communities of Practice and Organisational Levels of Sensemaking

In a different view of organisations Weick quotes Wiley²⁵⁹ to distinguish three levels of sensemaking above the individual level of analysis. These are the generic subjective, intersubjective and extrasubjective levels.

Communities of practice are social structures that enable sensemaking on the intersubjective level where emphasis shifts from the individual to the collectivity of the group. This happens through their strong relationships, participation in their practice, and common interest in their domain. Their domain provides them with a *common ground and common sense of identity*.²⁶⁰ In a community of practice it is not simply about the sharing of norms, but the forming of a *level of social reality*²⁶¹ around an intersubject which is typically its domain.

Intersubjectivity emerges in interchange and synthesis of community members in their social dealings. Gephart touches on the intersubjective level of analysis in his description of sensemaking as

*the verbal intersubjective process of interpreting actions and events.*²⁶²

Where Wiley sees organisations as functioning on the generic subjective level and bridging to the intersubjective from time to time, communities of practice as informal social structures rarely bridge to the generic subjective level. Although they may develop some basic methodologies, they do not comprise of interlocking routines and habituated action patterns that allow substitutability among agents. The level of interaction is the level of analysis for communities of practice. The intersubjective level is the one where members interact, synthesise, innovate or negotiate meaning. The intersubjective level of sensemaking is also the one where intimate relationships between members and the very notion of *community* are relevant.

²⁵⁸ Weick KE. 1995. 70.

²⁵⁹ Wiley N. 1988. Cited by Weick KE. 1995. 71.

²⁶⁰ Wenger E, McDermott R, Snyder WM. 2002. 27.

²⁶¹ Weick KE. 1995. 71.

²⁶² Gephart RP, Jr. 1992. Sensemaking, communicative distortion and the logic of public inquiry legitimization. 118.

*The community creates the social fabric of learning. A strong community fosters interactions and relationships based on mutual respect and trust. It encourages a willingness to share ideas, expose one's ignorance, ask difficult questions, and listen carefully. Have you ever experienced this mixture of intimacy and openness to enquiry? Community is an important element because learning is a matter of belonging as well as an intellectual process, involving the heart as well as the head.*²⁶³

If communities of practice are properly utilised and recognised by the organisations they belong to, they can provide depth to the organisation on the intersubjective level. A successful community is able to assist the organisation in being adaptive by adding the dimension of intersubjective sensemaking which supports change and innovation. Organisations can depend on communities to support their navigation from the intersubjective to the generic subjective. Communities of practice can provide a continuous flow of innovation and vivid unique understandings to the organisation to ensure that they do not stay trapped on the generic subjective level. Communities of practice can be sources of innovation due to the fact that control plays a very small role in their activities. Organisations should however, ensure that they themselves do not get stuck on the intersubjective level either. They have to maintain a balance between the intersubjective and the generic subjective to function optimally.

On the intersubjective level there is no susceptibility to the replacement of interactants because of the fact that the community is not a formally structured hierarchical entity. Interpretations are mutually reinforcing and sensemaking is ongoing. From a sensemaking perspective, the richness of face-to-face contact is emphasised on the intersubjective level and that facilitates the perception of complex events. These perceptions lead to the innovation required to manage complexity in communities of practice.²⁶⁴

3.3.4 Sensemaking, Communities of Practice and Organisational Change

Tsoukas discusses three ways to make sense of organisational change and management: the behaviorist, cognitivist and discursive approaches.²⁶⁵

²⁶³ Wenger E, McDermott R, Snyder WM. 2002. 29.

²⁶⁴ Weick KE. 1995. 73.

²⁶⁵ Tsoukas H. 2005. Afterword: why language matters in the analysis of organizational change. 96.

The *behaviouristic* approach views change as being modelled on motion, it is therefore episodic and it occurs in successive states. The natural state of an object is stasis and it only moves from this state when an external force is applied to it. Objects can however, return to stasis again. What typically changes in organisations is human behaviour and culture. The forces that cause change are managerial requests, orders and commands in the form of rewards and punishments. If the object that force is applied to does not move sufficiently, or at all, it means that it is resisting. The way to overcome resistance is to apply more force. In the behaviorist view the change agent is external to the object that has to change and there is no relationship between the two. Change in this case is other-directional: the change agent is there to ensure that the others that need to change do so. The object that has to change has a specific structure and if that is known, it can be changed deliberately. The behaviorist view calls on a naturalistic onto-epistemology. It portrays the organisation as being populated by individuals, structures, systems and processes. These can be objectively described and consciously altered.

Change in organisations is often performed in the behaviorist way. This is particularly true for organisations with a hierarchical structure where the management style is autocratic. In addition organisation operates according to interlocking routines strictly on a generic subjective level. Sensemaking opportunities in these types of changes are limited. Even though communities of practice are seen as a kind of informal organisational structure, the behavioral view does not particularly hold true for them. There is no specific structure that could be objectively described or altered, and no formal management structure exists. Change is also not described in individuals, systems and processes but rather in the collective mind of the community.

A second view of change described by Tsoukas is the *cognitivist*²⁶⁶ approach. This moves beyond behaviorist theory and focuses on the mind instead of behaviour. To them the emphasis is not on people that behave differently, but on the reason for a change in behaviour. What is necessary is to make sense of how people make sense. The cognitive perspective investigates the mental processes that underlie the observable behaviour of people and how they represent the world. Although cognitivists take meaning into account, it is understood from an information processing point of view rather than a sensemaking one. Cognitivist theory highlights the fact that individuals have representations of the world where

²⁶⁶ Tsoukas H. 2005. 97.

knowledge structures are stored in the form of schemas or scripts. The focus is on the individual mind and the establishment of how these schemas operate.

Cognitivists are Cartesians who believe that the internal space of the human mind is purely involved in mental operations and computations and that it mediates between stimulus and response. While behaviorists attempt to change people's minds through reinforcements, cognitivists want to effect change by impacting how people think. Change is regarded as episodic and the accuracy of a person's inter-connected cognitive maps is responsible for knowledge of how to effect change. This kind of knowledge is objective and can be focused on an individual mind and in organisations that is the managerial mind.

Sensemaking theory supports the notion of mental models or cognitive maps but does not see the knowledge of those maps to be determined objectively and independently. Sensemaking is not only a mental activity that precedes action; action mostly precedes sensemaking. The cognitivists focus on the individual and negate the interdependency of people within social structures. To them sensemaking is an individual mental process. It does not take into account the relationships, feelings, norms and beliefs that are so characteristic of communities of practice. Cognitivists have a purely rational approach to change. This may work in some instances in organisations but is surely not the way that change is digested within communities of practice.

Change and sensemaking in communities of practice is approached from a *discursive* perspective. In this approach meaning is treated as central on the research agenda of change. Human behaviour cannot be understood until the meanings informing it are clear. This meaning does not only exist in the minds of people but also in the way they act. Their thinking is based on concepts and these concepts are expressed in words.

*The individual is thus thought to be not an isolated cognizer but a participant in a form of life – engaged with others in meaningful activities*²⁶⁷

Once individuals have learned to participate in a *form of life*, rules can be extracted that state the norms of the practice. People use concepts and symbols that draw their meaning from the language game within which they are used. Attention must not only be paid to mental content but also to the broader system within which concepts are situated and practiced. This broader system is a discursive practice.

²⁶⁷ Tsoukas H. 2005. 98.

A discursive practice involves the norms-bound use of a sign-system that is directed at accomplishing something. From a human perspective this sign-system is ordinary language. The discursive view focuses on patterns in the use of words rather than abstract representations of the mind. Since ordinary language is often concerned with actions (whose performance can only take place via language), they represent a functionally indissoluble unit. The discursive perspective states that there is an interpretable relationship between the meaning of what we say and what we do in given circumstances. These relationships rule how we live our lives with one another.

*From a discursive point of view organizational change is the process of constructing and sharing new meanings and interpretations of organizational activities*²⁶⁸

Communal activities can be redefined and altered due to the fact that they are language-dependent structures. Change in communities goes hand-in-hand with the redefinition, re-labelling or re-interpretation of activities. It is through performative speech acts like re-definitions and re-interpretations that speakers bring about what they pronounce. From the discursive point of view, language is not merely the medium through which change is effected, but change takes place in language and that brings about a different state of affairs.

The fact that communities of practice are self-organising systems with permeable boundaries makes them particularly sensitive to the influences of changes and events in their environment. Due to the continuous conditions of change and the resulting intensifying of sensemaking activities, these communities can be seen as sensemaking hubs.

Meaning in communities of practice is primarily negotiated through the use of words. Words and language are crucial to their acts of sensemaking. Weick argues that:

*Sense is generated by words that are combined into sentences of conversation to convey something about our ongoing experience. If people know what they think when they see what they say then words figure in every step. Words contain the saying that is produced, the categories imposed to see the saying, and the labels with which the conclusions of this process are retained. Thus words matter.*²⁶⁹

²⁶⁸ Tsoukas H. 2005. 98.

²⁶⁹ Weick KE. 1995. 106.

Discursive theory describes a central component of sensemaking in general and consequently also of sensemaking in communities of practice. The communication part of sensemaking occurs in the interactive talk and resources of language that are drawn on to formulate and converse.

Discourse is a primary medium of learning and knowledge creation within communities, be it through face-to-face contact or virtual communication. It is through articulation of tacit knowledge²⁷⁰ and the consequent discussions thereof that problems are solved; new insights developed, and that situated learning takes place. Language is the medium used to tell stories, resolve conflicts, build relationships and develop practice. It is through the use of words that communities of practice give sense and knowledge to organisations and thereby instigate change.

Action plays a major role in sensemaking and thus in communities of practice. Sensemaking can be driven by an action such as an interruption in the flow of events. Sensemaking in itself is an act of invention²⁷¹ that is enabled by the social dealings and communication with other members of a community. The language that community members use to articulate the knowledge created from sensemaking processes, can in itself generate action in other people or the organisations communities belong to.

3.3.5 Storytelling in Communities of Practice

Stories and their telling play an important role in knowledge creation within communities of practice. Stories are sensemaking and learning tools because they involve elements of language, symbols, shared meanings and social interaction.²⁷² Organisational models are generally designed for argumentation where communities of practice in its very design can be seen as supportive of narration. By sharing stories members of a community try to make the unexpected expectable and more manageable. Stories serve as guides to conduct in a community of practice and this supports Weick's argument that

*frames guide conduct by facilitating the interpretation of cues turned up by that conduct.*²⁷³

²⁷⁰ Weick KE, Sutcliffe KM, Obstfeld. 2005. 413.

²⁷¹ Weick KE. 1995. 163.

²⁷² Reissner SC. 2005. Learning and innovation: a narrative analysis. 486.

²⁷³ Weick KE. 1995. 127.

When newcomers enter the community, old-timers deliver to them a sense of past and an offer of the future. This happens through narratives and participation. Stories assist these newcomers to make sense of the community, its domain, practice, and values. Each member has a story to tell. The practice of the community gives life to these stories and the opportunity for mutual engagement allows for a way to enter these stories through one's own experience.²⁷⁴ Stories that are shared in the community are not exact replicas of the original experience, but the product of severe filtering and editing. Stories support the third-order controls that exist in communities of practice by transmitting shared values and meaning.

The requirements for generating a good story provide a plausible frame for sensemaking within communities. The sense of the narratives that are shared lies in how members connect elements of their experience together into a sequence. Over time a community builds up a shared repertoire of stories. These collections of stories are reifications that give meaning to practice. The links between old stories and new ones increase the possibility that outcomes can be predicted, understood and possibly controlled.

Story-sharing builds trust and understanding in a community of practice. Communal stories and legends also serve an important purpose in building the commitment of members to their community. Stories can convey the competencies and devotion of members to knowledge sharing and signals member's willingness to participate.²⁷⁵

When community members engage in problem solving the stories they tell and the connections they make between those stories help them to comprehend and diagnose the problem and make sense of how it can be resolved. Stories assist them in simplifying the problem at hand.²⁷⁶ Stories play an important role in the exchange of embedded, embodied and highly contextual knowledge that can assist in solving complex problems.

The forming of a story that is shared in a community is the construction of a coherent account of incoherent data and elements. Each shared story presents an exchangeable account that could be scrutinised and reflected upon in the group to trigger old memories and new insights. More stories can thereby be generated.

²⁷⁴ Wenger E. 1998b. 156.

²⁷⁵ Sole D, Wilson DG. 2002. Storytelling in Organizations: The power and traps of using stories to share knowledge in organizations. 3.

²⁷⁶ Weick KE. 1995. 127-131.

Through storytelling there is a convergence of separate experiences leading to a shared understanding and allows for the process of the negotiation of meaning. Previous stories get modified and built into more insightful ones. In the process members do not only add to their own understanding but also to the collective knowledge of their community. These stories are passed around and added to the shared repertoire of the community which is available to all members. Once a story is in the possession of a community, it can be utilised and further modified for the diagnosis of similar problems.

In distributed or virtual communities stories are mostly shared in written form. Stories that are written down are subject to many of the same problems that all explicit representations of knowledge face:

disconnection from the teller, fixed linearity in the telling, and a certain degree of “petrification” that is required from any snapshot.

The stories are captured in a given moment in time taking the audience of that moment into account. In the complex and changing environment of a community of practice these stories might eventually become static and removed from the realities and issues of the present specific audience. To overcome this shortfall, codified versions need to be reviewed, updated or rephrased regularly to connect them to the language and concerns of the present.²⁷⁷

Stories and how they are told can expose the intricate social web that is part of the environment within which activities take place as well as the relationship of the narrative, narrator and audience to the specific events of the practice.

*The stories have a flexible generality that makes them both adaptable and particular. They function rather like the common law, as a usefully underconstrained means to interpret each new situation in the light of accumulated wisdom and constantly changing circumstances.*²⁷⁸

People will go very far to give coherence to their life trajectory using retrospective sensemaking within the continuity of a narrative identity. The construction of this coherent narrative is an interactive social process, and in the very telling of their story people negotiate the coherence of their life.

²⁷⁷ Sole S, Wilson DG. 2002. 6.

²⁷⁸ Brown JS, Duguid P. 1991. 45.

In the 1980's Xerox were looking for ways to boost the productivity of their field staff. They launched a study of the work of the field staff before making any decisions on how to proceed. In the study an anthropologist traveled with a group of technical reps in order to observe how they actually did their jobs as opposed to how they described it, how managers perceived it or how it was specified in their canonical practices. What the anthropologist saw was that the reps made a deliberate decision to not only spend time with their customers but also with each other. They would gather in common areas like the local parts warehouse having coffee together and swapping stories from the field. From a reengineering perspective this behaviour would be seen as unproductive and to be eliminated, but the opinion of the anthropologist was exactly the opposite. He did not see the technical reps as slacking off, but rather as doing valuable work. What became clear was that field service was a social activity involving a community of professionals. Apart from just repairing machines, the technical reps were also co-producing insights on how to improve on ways of fixing machines. This discovery caused a paradigm shift in Xerox and they no longer manage tech reps as independent workers, but rather as a social learning unit.²⁷⁹

3.4 Limits to Sensemaking in Communities of Practice

In successful communities of practice sensemaking is clearly a case of organisational sensemaking, although they mostly make sense on the intersubjective level. They are informal natural systems with flexible boundaries and are focused on learning and the creation of new knowledge. They seem to have more and intensive sensemaking processes because of their very structure. However, certain downsides in communities of practice can inhibit sensemaking and affect their innovative capabilities.

²⁷⁹ Brown JS, Gray ES. 1995. *The People are the Company*. 78-79.

3.4.1 Sensemaking and Domain Disorders

When a community becomes over-confident about its expertise within its domain, they can develop a self-importance that cause sensemaking opportunities to be placed under severe pressure. The community becomes so exclusive to members that they no longer pay the necessary attention to the environment. They will deem themselves such experts that the opinions of others external to the community will not be taken into account. Community members need to be exposed to outside experts, new methodologies and alternative views for sensemaking to occur. Arrogance will cause the boundaries of the community to stagnate and make members less prone to noticing cues in the environment that need to be bracketed and made sense of. Retrospective sensemaking can be impacted since members may be so self-righteous that they do not reflect on issues sufficiently to create new meanings. If sensemaking in a community is reduced, the quality and quantity of new knowledge comes under threat. Since sensemaking has to precede learning, the reduction in sensemaking will impact the quality of learning in the community.

The same sensemaking problems occur when a community of practice becomes marginalised and not recognised by the organisation. Their ability to enact their environment is not optimal and members become dissatisfied and frustrated. This has a draining effect on energy and once again community members may not be alert or motivated enough to derive meaning from their circumstances or be alert to the environment. A demotivated community would spend less energy on sensemaking activities. There is however the possibility that the lack of recognition and the negative emotion that it triggers can speed up sensemaking, which can have a motivating effect on community members. If marginalisation persists and members become disillusioned the existence of the community comes under threat.

When community members become narcissistic and overly concerned with themselves and pursue their own agendas, they also tend to isolate themselves from the environment and have less sensemaking opportunities. The organisations to which such communities belong will derive less value from the community because less sense and knowledge are distributed into their environment.

Homogeneity in communities of practice is not encouraged due to the fact that diversity brings about lively debates and different perspectives. Although a domain is not a fixed set of problems, community members must have a common understanding of their domain. The domain assists members in deciding what is relevant to share and what is worthwhile to pursue. The identity of the community is linked to its domain. Sometimes conflict arises

about the definition or scope of the domain and members or factions fight for their own interest, opinion, perspectives or school of thought. Although conflict can be healthy from a sensemaking point of view, sensemaking may slow down if members continue to pursue their own interests to the detriment of the community. Instead of engaging in constructive sensemaking activities members get caught up in arguments where they cannot accommodate other perspectives and make sense of what they are dealing with. This happens when more energy is spent emphasising differences rather than developing practice and negotiating meaning.

Domain disorders reflect how the community defines itself and it can have limiting effects on sensemaking in the community. However, these very disorders can open more opportunities for sensemaking. If the identity of the community as a whole is destabilised it also affects the identity of individual members and that touches on the root of sensemaking, being identity construction. The result of the sensemaking process may be that the identity of the group is reconstructed or that individuals decided they no longer want to be associated with the identity of the group and leave the community. It depends on what the impact of the problems of the domain is on member's feelings of self-esteem and self-efficacy. Alternatively the community may disintegrate. Counter-measures can be developed by attending to the relationships of community with its organisation and other constituencies:

*These may include establishing the legitimacy and strategic value of the domain, clarifying the link to business issues and finding ways for the community to add value, offering inspiring challenges, including the community in important decisions, holding it accountable for the reputation of the firm in the domain, or exposing it to other perspectives.*²⁸⁰

3.5.2 Sensemaking and Community Disorders

A successful community is built on interactions and interrelationships based on trust and mutual respect. It should provide a safe space for community members to interact and learn although it has its own strengths and weaknesses including conflicts, jealousies and intrigues.²⁸¹ Problems arise when the bonds between members become too tight and cause

²⁸⁰ Wenger E, McDermott R, Snyder WM. 2002. 144.

²⁸¹ Wenger E, McDermott R, Snyder WM. 2002. 144.

rigidity in the community. The tighter the coupling of the system (community), the less concerned they are with sensemaking.²⁸²

When relationships in a community are so strong that all other concerns are dominated opportunities for sensemaking are reduced. In a cliquish community like this there is often a powerful core group that serves as an imperious gatekeeper. They tend to become exclusive even if it is not intended. The danger for a cliquish community is that it may stagnate.

Tight relationships between members can create barriers to new participants. A community of practice that is not open to new entrants diminishes its sensemaking opportunities. New entrants bring fresh perspectives, experience and challenges that stimulate sensemaking and the creation of meaning, which is essential to the functioning of a community of practice. If relationships between community members become too close they can start focusing on the relationships rather than their domain and the building of a practice. It can cause them to protect each other from challenges and confrontation. For sensemaking to be stimulated new blood is required as well as people that are not too caught up in tight interrelationships, and who can assist to reopen the community's horizon.²⁸³

Sometimes a community may function according to a group norm of equality where no-one is supposed to stand out. This can constrain sensemaking and the generation of novel ideas. The reason being that it might be difficult for members to take risks or distinguish themselves and open sensemaking opportunities to the group by interrupting the sequence of events.

It may happen in a community of practice that members become so dependent on a coordinator that they become vulnerable to the departure of that person. This dependency can silence other voices and reduce the multiplicity of perspectives. If the community persists in this way and members depend on the leader to notice cues in the environment or direct their sensemaking activities, sensemaking opportunities in the group will diminish. However, if the leader or coordinator would leave the community, there it will cause a major disruption. This disruption will intensify sensemaking activities and members have to make sense of how to resume the interrupted activity – the functioning of the community. They can make sense of the fact that they are too dependent and develop strategies for survival and more optimal functioning. Social interaction will increase as community members try to make sense of the disruption caused by the departure of their leader. Sensemaking will be internally focused and

²⁸² Weick KE. 1995. 70.

²⁸³ Wenger E, McDermott R, Snyder WM. 2002. 145.

members will probably be less alert to their environment and the creation of new knowledge until they have resolved their dilemma. In extreme cases the only sense to be made may be to discontinue the community.

While it is essential for a community to have an active core group, it is possible that too much distance develop between the core group, experts and other participants. This stratification of classes of members may cause problems to develop a common identity for the group. Identity construction is a core aspect of sensemaking and the personal identity of community members can never be seen as removed of or unaffected by that of the group. Individuals act as themselves as well as the community to which they belong. The lack of a common identity may keep members captive in identity construction and not allow enough space to make sense of what is happening in the environment. If stratification continues and the development of a common identity fails, members external to the core group may lose interest in the community or conflict may erupt. Conflict and arousal will account for renewed discussions between the different parties within the community and can have a positive effect on the construction of a common identity for the group.

If a community is too large and members do not actively participate and build relationships, the community will have a superficial sense of identity. Because sensemaking is social, limited social contact and interaction will inhibit sensemaking opportunities. It is in the social interactions with others that personal and the community's identity is constructed. A disconnected community like this will struggle to make sense and integrate different perspectives due to the fact that there is limited social contact between members. What they need are

*joint activities that build a meaningful sense of shared identity.*²⁸⁴

3.5.3 Sensemaking and Disorders of Practice

A community of practice may fall into the trap of documentism, where amassing documents becomes a purpose in and of itself. Documentation can accumulate in such a way that it becomes beyond anyone's ability to make sense of it. If the focus shifts to documentation rather than relationship building or collaborative problem solving or if there is less focus on discourse and interaction, sensemaking opportunities will also diminish or not be explored. This will have an impact on the quality and *sense* of documentation being put forward.

²⁸⁴ Wenger E, McDermott R, Snyder WM. 2002. 146.

Although communities of practice mostly make sense on the intersubjective level, a strong sense of competence can lead to an unbending commitment to established canons and methods. They then start operating according to first or second order control and tend to make sense more on the generic subjective level, which does not create the necessary conditions for innovation and the development of new insights and ideas. In the case of a community being more dogmatic it can once again cause members to be oblivious to cues in the environment to make sense of in order to bring novelty into their practice. This will defy their very purpose of learning and creating new knowledge. Dogmatism involves a blind respect for authority, and therefore the situation can be improved by engaging some thought leaders to guide the community to greater adaptability. Sensemaking should consequently occur more intersubjectively and members should be able to settle for plausibility rather than for accuracy.

As much as communities of practice can become overly focused on documentation, the reverse can also be true:

*Some communities do little more than discuss current member problems, without documenting the insights that they develop.*²⁸⁵

In communities like these the many opportunities for sensemaking are utilised with the resultant insights, innovation and creation of new knowledge. It becomes a problem though if there is no a medium of sharing beyond the discussions from which meaning was created. Communities of practice need to externalise the sense they make from the cues that they extract from the environment. They must act as sensegivers to organisations giving the organisation meaning by creating sense in a different form.²⁸⁶ Hence the fact that part of their authoring must be in documentation that could be made available to not only to community members but also beyond the boundaries of the community.

Part of building the practice of a community is to *sharpen the saw* by continually engaging in learning and innovative activities. Some communities settle for mediocrity because it is easier than being cutting edge. In this case it is most likely that sensemaking opportunities are not explored to their full extent. There might not be enough knowledge in the community to perceive cues and new possibilities in the environment, and confront each other in discussions. The community might also not have enough passion for their domain to

²⁸⁵ Wenger E, McDermott R, Snyder WM. 2002. 148.

²⁸⁶ Weick KE. 1995. 10.

stimulate conversations that enhance sensemaking. What would be useful are benchmarking activities that could confront the community with higher standards and provide stimuli that meaning can be constructed from.²⁸⁷

Although the disorders of a community of practice can be to its detriment, many allow for the necessary disruptions to stimulate sensemaking and can therefore encourage renewal within the community. In other communities disorders like inertia or mediocrity can persist because of the very reason that there is not enough interruption in the sequence of events to encourage sensemaking. Taking all of this into account, it could be argued that with the right leadership and the stimulation of sensemaking opportunities many community disorders can be kept at bay.

3.5 Conclusion

In applying sensemaking theory it becomes clear that a community of practice is a fertile ground for sensemaking activities. The properties of sensemaking are very prevalent in these communities and identity construction, the most important of the properties, is similarly highlighted in the literature on communities of practice. It can be argued that Wenger's concept of the *negotiation of meaning* is in essence the making of sense.

Tsoukas's discursive approach to change, where meaning is treated as central, is applicable to communities of practice. It is through discourse between community members that stories are told, relationships built and knowledge shared.

Organisational sensemaking principles apply to communities of practice but are more applicable on the intersubjective level than the generic subjective. The reason for this is that communities of practice are selforganising informal structures that operate according to third-order controls and are not bound by the interlocking routines of formal organisations.

It is anticipated that healthy communities of practice raise more opportunities for sensemaking and consequently learning, due to their flexible structure. The fact that authoring, interpretation, creation and discovery corresponds with typical activities within a community of practice makes sensemaking an integral part of their world. Communities author discussions and create artefacts (reifications) as part of their practice and actively interpret their experiences. They innovate and jointly discover new expert knowledge within the areas of their domain.

²⁸⁷ Wenger E, McDermott R, Snyder WM. 2002. 149.

From the analysis done in this chapter it is fair to assume that communities of practice are first and foremost sensemaking phenomena and that sensemaking is the foundation for the knowledge creation and learning that take place in these communities.

Chapter 4

Conclusive Findings and Recommendations

4.1 Conclusive Findings

Communities of practice are generally seen as sources of specialised knowledge and innovation, as well as crucial locuses of situated learning. They are acknowledged for being stewards of expert knowledge within their specific domain. However, when viewed through a sensemaking lens it becomes clear that sensemaking theory adds a new dimension to the development of a community and its practice. Sensemaking in communities of practice can be seen as being pervasive to the extent that they can indeed be described as sensemaking phenomena. For new knowledge and insights to be developed, community members need to notice and make sense of cues they extract from the environment. The sensemaking process is triggered when communities find that the current state of their world is different from what they expect it to be.

As sensemaking phenomena, communities of practice can make sense of cues within the spectrum of their domain on behalf of the organisation. However, the real value is only realised once the sense that they have created, is fed back to the organisation in the form of knowledge. In other words they act as *sensegivers* within the realm of their specific domain.

Communities of practice are informal social structures that exist within and across organisational boundaries and they can be geographically dispersed. They are complex systems being in a continuous state of flux. Communities of practice do not have the solidity of a formally structured organisation and they therefore have to deal with ambiguity and uncertainty on a more frequent base. This ambiguity and uncertainty instigates sensemaking and community members take the cues that they observe in their complex environment and place them in the context of a frame or mental model to restore some order in their world. Meanings that are derived from sensemaking processes are crucial for situated learning in communities as well as to grow and maintain their practice.

Meaning is core to both the concepts of sensemaking and communities of practice although from a review of Weick and Wenger's work there seems to be a difference of opinion on when meaning is created. Wenger argues that meaning is the ultimate result of learning whereas from a sensemaking perspective it is fair to argue that meaning has to be generated as part of the sensemaking process, before any learning can take place.

The practice of any community is first and foremost a process by which members can experience the world and their engagement therein as meaningful. The negotiation of meaning takes place through the social interaction of community members. Negotiation of meaning is described in the literature on communities of practice to involve both interpretation and action. The act of sensemaking as described by Weick is similar, but is said to not only include interpretation and action, but discovery and invention as well.

Seven properties are distinguished in the theory on sensemaking and they all are particularly relevant in the case of communities of practice.

Identity construction is highlighted as one of the most important properties of sensemaking and identity is an integral part of the existence of a community. The identity of a community is directly linked to its domain. Members build an identity through the negotiation of meaning and participation in their communal activities. Identity construction is activated when their sense of self-enhancement, self-efficacy and self-consistency is threatened. Their sense of belonging in the community depends on the self of members as they perceive others to hold in their minds. Collectively the identity of the community is not only determined by the perceived importance of their domain in the world, but is also affected by the images that are reflected back to it from the environment. Any pressure on identity whether it is local or global, necessitates sensemaking. Because communities of practice are systems in flux, there are continuous threats to their sense of identity.

Another property of sensemaking indicates that *sense can only be made in retrospect*. The retrospective nature of sensemaking is clearly visible in communities of practice. Cues that are noticed, information that is shared and stories that are told are already in the past. It is only in retrospect that members can make sense of what is going on around them. Community members have to focus their attention on certain events and experiences within pure duration in order to bring it to the attention of the community. Weick argues that once attention is focused on something it had actually already occurred in the past. The experience that members share within the community is *meaningful lived experience*, and lived indicates

that it had already happened. Consequently sense can only be made in retrospect. Storytelling is a common way of sharing knowledge and experience retrospectively within communities of practice. The meaning that the storyteller attaches to the story as well as the sense that other community members make of the story are both influenced by the context within which the story is shared as well as the kind of attention that is paid to it. One of the goals of sensemaking is the creation of order and once community members arrive at a sense of order retrospective sensemaking stops.

The third property of sensemaking is that sensemaking is *enactive of sensible environments*. Members of a community of practice are partly responsible for the world in which they partake. Knowledge and ideas are created then reified and then enacted back onto the environment. The effects of those enactments are then observed. From the observations that are made the community creates meaning and in that way makes the environment more sensible to themselves. This process of enactment on the environment, observing the consequences and making sense of it, is a circular process between the community and its environment and it aids in the development of the communal practice.

Sensemaking is social and socialising is one of the most important activities within a community of practice. Members participate in conversations and interactions to negotiate meaning and build a joint enterprise, which is essential for the growth of their practice. The element of *community* is dependent on members building relationships and creating a sense of belonging. Members make sense through their mutual engagement with each other and that reflects the social property of sensemaking. The members of a community of practice socialise either through face-to face contact or through written text. In the case of distributed communities these interactions are often in written form and shared via emails, wiki's or websites. Since the context of sensemaking through the spoken word is different from that of written text, it can be argued that people will make different sense of visual live interactions as opposed to text communication. Distributed communities lose the gestures and body language that accompany face-to-face interaction. The fact that decisions in a community of practice have to be made with the buy-in of the majority of members, allows for conflict, argumentation and debate. Conflict causes arousal in members and that triggers sensemaking. In their dealings with each other, community members alter their mental models or frames of reference by making sense of what is shared with them.

Wenger indicates that the negotiation of meaning is an ongoing activity within communities of practice. This resonates with the *ongoing property of sensemaking* as described by Weick.

Meaning is created as part of the sensemaking process and this process is never-ending. The negotiation of meaning never occurs at one specific moment, but rather develops through the ongoing flow of what members are busy with. To make sense of an ongoing flow of experience community members have to chop out moments from those flows and use the cues they observe from that to make things sensible.

Focussed on and by extracted cues is how Weick describes the sixth property of sensemaking. Communities of practice have to remain alert to their environments for changes and cues that have to be made sense of in the context of their domain. They notice and extract these cues from the ongoing flow of events, and then filter, compare, embellish and classify them to make sense of what is going on. Community members attend to the cues that seem most relevant to their community, domain or practice. The cues they notice represent the whole context from which these cues were extracted and this extraction suggests consequences to members that are more obvious than the origin of the cues. Community members place the cues into their frames of reference and then make sense of what is going on. Sense can only be made through the combination of the member's frame of reference and cues that are extracted. Cues do not mean anything on their own. Because communities of practice are complex systems, the context in which they have to deal with cues from the environment are more equivocal than that of a formal organisation. Sensemaking of the cues produces meaning which can be in the form of new insights, solutions and ideas. Communities of practice feed the meaning that they have generated from the sensemaking process back to organisations that they belong to. Within their domain of expertise they fulfil the role of sensegivers to their external environment.

Sensemaking is driven by plausibility rather than accuracy. This seventh property of sensemaking deals with accuracy versus plausibility and the fact that *accuracy is nice but not necessary* in sensemaking. This holds true for sensemaking in communities of practice as well. If a community becomes preoccupied with accuracy sensemaking opportunities are inhibited and in the process hinders the development of new knowledge. In attempting to find accuracy inertia may set in and the community's practice can become stagnant. Successful communities use plausible reasoning by going beyond what is observable and creating ideas or understandings that provide enough certainty to be useful. Community members are confronted with equivocal stimuli and often incomplete information. To make sense of these inputs they filter and embellish cues by linking them with more generalised ideas. When taking into account that there are multiple cues, multiple ideas and multiple audiences, an

accurate perception becomes meaningless. What is feasible is that members make sense plausibly of that which they have to deal with. Healthy communities use symbolic trappings of sensemaking such as stories, metaphors, fables, epics and paradigms to create coherence. Focusing on accuracy seems futile.

Weick, Sutcliffe and Obstfeld proposed a *framework for sensemaking and organising* that fits in precisely with how communities of practice organise themselves to make sense of the equivocal inputs they receive from the environment. The phased approach makes provision for a sequence of ecological change-enactment-selection-retention stages with the results of retention feeds back to the other three processes. Communities of practice notice cues in their environment or enact on their environment and observe. There is a reciprocal relationship between ecological change and enactment. Enactment in particular involves member's activities of noticing and bracketing cues from the environment that is relevant to the community and its domain. Through noticing members start to organise cues or information in crude categories. Several meanings exist and only through the process of selection are these potential meanings reduced. The community constructs a local plausible story through the act of retrospective attention. This story is however, still tentative and it is then given solidity through retention. As stories become retained they guide further interpretation and negotiations of meaning.

A sensemaking view of communities of practice cannot be constructed without elaborating on the role that stories play in their sensemaking activities. By constructing stories members create coherence from ambiguity and equivocal data. Communities build up a shared repertoire of stories over time. A repertoire of stories is an important factor in settling newcomers into the community and moving them from the periphery to the core. Through the sharing of narratives trust and commitment is built in a community. Another important role that stories play is in the process of problem solving. In connecting the different elements within stories a problem can be diagnosed. Once a story is owned by a community it can be adapted to diagnose similar problems. In the case of distributed communities members generally have to share stories in written form. This poses the problem that is common to explicit representations in that it is removed from the author. It is a snapshot of a moment in time taking a specific audience into account. The impact of this can be diminished by reviewing and updating stories regularly.

The metaphor of a natural system is a suitable one for communities of practice as organisational structures. These evolving entities are selforganising and their boundaries are

fluid. They function in an ambiguous context and are exposed to a diversity of stimuli. Sensemaking in communities of practice is similar to organisational sensemaking, but there are distinct differences. Where formal organisations bridge between the intersubjective and generic subjective levels of sensemaking, healthy communities of practice make sense on an intersubjective level. They rarely bridge to the generic subjective. The intersubjective is evident in communities through their mutual engagement, participation in their practice and common interest in their domain. The community's domain forms the intersubject and gives members a common sense of identity. The generic subjective does not normally apply to communities of practice because they are not defined by formal role and responsibility definitions, interlocking routines and habituated action patterns. Communities of practice are sensegiving structures that can assist organisations in navigating from the generic subjective to the intersubjective levels of sensemaking.

Tsoukas describes three approaches to organisational change, which are the behaviourist, cognitivist and discursive views. A discursive approach is most applicable to a sensemaking view of the functioning of communities of practice as self-organising systems and their ways of dealing with change. Similar to sensemaking theory, this approach depicts meaning as a central concept on its research agenda for change. This corresponds to the emphasis that Wenger places on the negotiation of meaning as vital for a community to build its practice. Discourse is the primary medium for learning and knowledge creation in communities of practice. The making of sense and derivation of meaning are driven by words, language and talk. It is through verbal communication that community members tell stories, solve problems, innovate and build practice. The discursive approach is clearly visible in the sensemaking activities in communities in that language is closely linked to action and that they form an indissoluble unit. This unity influences the effect that members have on each other within the community. Language that is used by community members can generate action in other members as well as in the organisations to which communities belong. As much as communities of practice are continuously subject to change they are also instigators of change in the organisational environment.

Although sensemaking is a core activity within communities of practice, disorders of within community can place serious limitations on their sensemaking processes. Some disorders cause communities to focus inward and become too tightly knit. Consequently they become less alert to their environment and overlook cues that may present opportunities to make sense and develop novel ideas. Knowledge renewal may become restricted. Disorders that are

responsible for this lack of attentiveness are: arrogance about their expertise, marginalisation, mediocrity and bonds that are too strong between members to incorporate newcomers with different perspectives. A community of practice may also become preoccupied with developing canonical practices and start functioning mainly on a generic subjective level rather than the intersubjective. Innovation and knowledge creation is then restrained and the whole object of a *community of practice* is defeated in the process. An increasing trend in the global economy is the establishment of distributed or virtual communities. They pose unique challenges to sensemaking. In most of these communities communication happens in written form. The absence of face-to-face contact is devoid of the full context in which sense is made of cues from the environment. Non-verbal language like gestures and emotions in the transfer stories and experiences, are not visible. Distributed communities should compensate for the lack of face to face contact by ensuring that the richness of the sensemaking process is built into their written communication to ensure that it is not just a rational reporting of facts

Even though community disorders can be to their detriment, there are many of them that create sufficient disruptions for sensemaking to be activated. If communities take advantage of these sensemaking opportunities it can guide them through the renewal of the community that is necessary to restore its health.

4.2 Recommendations

When taking into account that communities of practice are not only custodians of specialised knowledge, but also sensemaking units, organisations should nurture them as such to realise their optimum value.

What is most important is that organisations become aware of the role that communities can play as a key success factor in the global knowledge economy. The cultivation of communities of practice should become a vital part of an organisation's knowledge strategy. They need to ensure that communities are acknowledged and legitimised within their company and organisations have to take care that their communities are not isolated.

Communities of practice as sensemaking hubs should be designed in such a way that the design elements can act as catalysts for their spontaneous evolution. They can often not be created from scratch according to some master plan or blueprint in the way that traditional organisations are designed. Communities should start off with a very simple structure and be allowed to evolve as they enact the environment and create order through their sensemaking activities. Members need to be encouraged to socialise, build relationships and construct a

communal identity around their specific domain. It is only through social interaction that communities can start making sense of their environment and build their practice.

In the case of large distributed or global communities, design becomes a more complex issue. The design principles for local communities still apply, but in the case of distributed communities, organisations face challenges such as differences in cultures, time zones, language and affiliation. A more formal approach is required, although companies should be careful to not fall into the trap of designing a rigid structure that inhibits sensemaking in the community. Organisations should take care to create a support structure for community members to stay connected and realise their full sensemaking potential. There must be full alignment of all stakeholders from the different areas where members are located or subcommunities exist. The structure that is created should allow for both local variations and global connections. The community can be designed to follow a kind of fractal structure where members belong to a global community by firstly belonging to a local cell or community. The connections between members of a community of practice that is so crucial for negotiating meaning can be established by allocating local coordinators that create links to the global community through a global coordinator. Local coordinators and the global facilitator should shepherd the processes of connection between members. They should coordinate requests and problems and post them to the network for assistance and insights. By doing so they will evoke sensemaking processes within the community. Once people start *finding* each other they can start communicating on an individual base as well. Coordinators should avoid hierarchy. They differ from managers in formal organisations and they exist with the main purpose of fostering horizontal relationships. Coordinators are the brokers for relationships, not for knowledge or sensemaking. If organisations do not put in effort and money to assist distributed communities in staying connected, their sensemaking opportunities will be hindered and that can lead to the failure of the community.

Because communities of practice evolve spontaneously and often start off with a simple structure, organisations should be realistic in their expectations of the community. The full value is normally not apparent when a community is first formed and communities should be allowed time to build up a shared repertoire of stories, symbols, frames and traditions. They will deepen the collective knowledge of the group through intensive sensemaking processes. Apart from financial investment in communities of practice, organisations should realise that they should also allocate time as a resource to communities. The community must be formally recognised and allocated time to meet on a regular base, communicate and engage in

sensemaking processes between meetings, and develop their documentation. It is only by interacting and conversing that the community can excel in its sensemaking activities. Apart from formally spending time together on a scheduled base, organisations should also create areas where community members can relax and interact informally, not only with each other, but also with other employees of the organisation. By interacting with people outside the community, more cues are picked up to be made sense of and it also creates an opportunity for spreading the knowledge and sense generated by the community. In addition to regular group meetings, community members should also be given the opportunity to interact with each other on an individual base. Individual contact should enrich the sensemaking processes in the community and support the building of their practice.

Another resource that organisations need to make available to communities of practice is technology. They are dependent on technology to remain connected and keep their sensemaking processes going. In distributed or virtual communities their communication is mostly technology based. If the only means of communication is through technology, many sensemaking opportunities get lost and building trust becomes a real challenge. Management should investigate the use of technologies that mimic face-to-face interaction to allow members to pick up on more subtle nuances of communication such as tone of voice, body language, facial expressions and gestures. Teleconferencing is often used, but to get the *full picture*, the possibilities of making video conferencing available should be considered. The use of Skype can be of great value in enabling individual contact between community members. Even when communities are able to meet regularly on a face-to-face base, electronic communication is needed to feed teleconferences and face-to-face meetings to strengthen relationships and make these relationships a more visible dimension of the community. The basic technological facilities that should be made available to communities of practice are email and web-based opportunities that allow for wiki's and community web sites. It is through electronic communication that members stay connected and sensemaking processes continue beyond face-to-face meetings.

There are more ways in which organisations can enhance sensemaking activities in distributed communities of practice. Organisations should invest in opportunities for distributed communities to meet face-to-face at least once in a while. They should experience the rich interaction of telling stories, sharing experiences, conversing around their topic and spending time together. In the process sensemaking activities can be stimulated and accelerated. An opportunity for distributed community members to meet in person, could be

in the form of annual conferences where community members can provide valuable cues from their different contexts and elicit high instances of sensemaking. Another suggestion would be for a core group of community members to visit various geographical areas where groups of members gather for face-to-face interaction. The face-to-face contact will enhance a sense of belonging, consolidate culture and through the resulting sensemaking activities develop practice.

The design of formal teams normally makes provision for clear structures and deliverables. However, in the case of communities of practice organisations have to accept that community design is built on the collective experience and sensemaking activities of the community. Their design is flexible and evolves as they create new sense and knowledge. Imposing too much structure on communities of practice will bridge them from the intersubjective to the generic subjective level of sensemaking, which means a decrease in innovation and novelty. Communities of practice function according to third-order controls and should not be exposed to the first- and second order controls of the organisation. The organisations to which they belong can nevertheless negotiate specific outputs from the community that will be of value to the organisation. This should not be done in such a way that it becomes the sole driver of the community. Management must provide communities with cues in the form of strategies, knowledge requirements and specific issues that need to be resolved within the specific domain of the community. Those inputs will allow for a context or frame of reference in which sensemaking can occur within the community and allow them to deliver value to the company. Communities should however, not be restricted to the context defined by the organisation. Their overall context must be that of their domain of expertise.

Organisations that invest in communities of practice have to accept that although the community may start off with the ideologies, paradigms and traditions of the organisation in their minds, they need to have enough exposure to develop their own set of values and beliefs that goes beyond that of the organisation. The culture of the organisation they belong to should not be forced upon them since they need to create their own culture to foster a sense of belonging that is so important for commitment of members to the community.

In addition to the cues provided by the company itself, communities must be exposed to an open environment beyond organisational boundaries where their domain determines the limits. A challenge for organisations is to accept that community members often interact across organisational boundaries. In their field of expertise they may be part of communities where experts from competitors also participate. Here the leakiness of knowledge comes into

play. What is important though is not so much what is shared with whom, but rather how organisations integrate the meanings and knowledge provided by the community back into their business for competitive advantage. Community members must be allowed to make sense of independent cues, triggers and trends that enable them to create novel ideas and insights. That must not be restricted by organisational boundaries. Sense should be made on behalf of the organisation and communities must feed meanings they create back into the companies they are part of. What companies should do is to ensure that there are channels available whereby communities can disseminate the sense and knowledge they develop.

Organisations should acknowledge the outputs and reifications of communities of practice and provide them with constructive feedback on the sense and knowledge they make available. They need positive feedback as motivation and recognition for valuable contributions, but also negative feedback to challenge their frames of references, where applicable. Unexpected positive feedback or rewards can trigger sensemaking in a community and so can negative feedback interrupt their sequence of events and cause arousal that enhances sensemaking. Higher instances of sensemaking will enable them to innovate and improve on what they deliver to their environment. Part of the positive feedback that must be given to community members is how the sense that they provided was applied. This will motivate them to make valuable contributions to the advantage of the organisation they are part of.

Communities are self-organising and informal structures. Over time they develop their shared repertoire of identity, culture, relationships, methodologies and symbols. Organisations should take care not to inhibit sensemaking opportunities in these communities by exposing them to strict rules and rigid standards. That will inhibit the richness and depth of their sensemaking activities and can lead to the failure of the community. They need the freedom to converse, tell stories, build relationships and develop insights, and above all develop their identity. As indicated in previous discussions, identity construction is a core aspect of communities of practice and is the most important property of sensemaking.

Members of a community of practice are united by the passion they have for their domain. Membership is normally voluntary and organisations should not prescribe who may belong to communities and who not. Employees should be however, be encouraged to join communities that specialise in their field of expertise. It is important for communities to incorporate new members with new perspectives, who can challenge the views and opinions

held within the community. New blood can cause interruptions in the pure duration that the community is exposed to and by doing that intensify sensemaking processes.

Part of what keeps sensemaking alive in communities of practice is novelty and excitement. Companies should assist communities to host interesting and varied events to keep new ideas and new people cycling into the community. Communities can engage in initiatives such as inviting controversial speakers to their meetings, workshops or annual conferences to challenge the ideas held by the community. This exposure can provide members with new cues and challenge their mental models which will trigger valuable sensemaking processes.

The exploration of communities of practice through a sensemaking frame opens up opportunities for further research in this domain. One such opportunity would be an empirical study and analysis of the role and content of stories in communities of practice. The impact of power and trust on sensemaking in communities of practice is also worthy of further investigation.

To summarize and conclude: It was demonstrated that communities of practice engage in sensemaking activities in order to create and host expert knowledge, induce learning, solve problems and innovate. Therefore, communities of practice are best seen as specialised sensemaking communities guided by the framework of their domain and aimed at the development of a practice and making their world sensible. This insight has effects in two directions. First, communities of practice have an important role in the various phases of the general organisational sensemaking process. Second, understanding communities of practice as sensemaking communities means that they should be supported as such. This might include a lot of social activity that is not at first glance directly connected to the specialised knowledge that typifies such a community. Organisational choices regarding the organisational and technological infrastructure to support these communities should then bear this in mind.

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