

**School of Management
Business and Law**

GETTING ON-THE-SAME-PAGE

A classic grounded theory explaining what happens
when Edward de Bono's Thinking Tools are
utilised by work teams in business organisations.

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DECLARATION

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university.

The research presented and reported in this thesis was conducted in accordance with the National Health and Medical Research Council National Health Statement on Ethical Conduct in Human Research (2007) – updated March 2014. The proposed research study received human ethics approval from the Curtin University Human Research Ethics Committee (EC00262), Approval # HR149/2010.

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ABSTRACT

Edward de Bono's thinking tools have been utilised world-wide by work teams for at least three decades. Over this period there has also been extensive research focusing on work team effectiveness, because work teams are intrinsic to the operation of 21st century business organisations. Despite widespread use of de Bono's tools however, there is a paucity of quality research focusing on the correct use of these tools by work teams. The purpose of the study presented in this Thesis was to explore the correct utilisation of de Bono's thinking tools by work teams within business organisations. The problem investigated was the main concern of people who correctly use de Bono's tools during work team occasions. Their main concern being, the emotional stress they feel each time they perceive particular types of cognitive interplay, that indicate to them a work team is not-on-the same-page, because no one is utilising de Bono's tools. The Getting On-The-Same-Page Theory is presented in this Thesis as a classic grounded theory explaining how this concern is resolved. The core variable of the theory is the cognitive capability process of *getting-on-the-same-page*. This process has three stages, Tooling-Up, Tensing and Enabling. Tooling-Up starts when *bettering* is activated at the time someone is introduced to the tools and changes in their cognitive capability commence with *structuring*, which occurs each time they utilise the tools. Tensing commences with *distinguishing* and a user perceiving *polarising*, *powering*, *holding-back* and/or *bouncing around* in contrast to *collective purposing*, *collective aligning* and *collective equalising*. The former being types of cognitive interplay that indicate to a user a work team is not-on-the-same-page because de Bono's tools are not being utilised, the latter being types of cognitive interplay that indicate a work team is on-the-same-page because the tools are being utilised. Enabling occurs when *taking-it-on* emerges and a user commits to helping people in business organisations to get-on-the-same-page, by helping them utilise de Bono's tools during work team occasions. Empirical data for the study was collected through interviews and observation of nine work teams, in six business organisations, utilising de Bono's tools for periods ranging between six weeks to at least four months. Data was analysed and collected while adhering to the tenets of classic grounded theory methodology. The Getting On-The-Same Page Theory contributes to both theory and praxis, including theory focusing on work team cognition, conflict and cohesion.

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We acknowledge that Curtin University works across hundreds of traditional lands and custodial groups in Australia, and with First Nations people around the globe. We wish to pay our deepest respects to their ancestors and members of their communities, past, present, and their emerging leaders. Our passion and commitment to work with all Australians and peoples from across the world, including our First Nations peoples are at the core of the work we do, reflect our institution's values and commitment to our role as leaders in the Reconciliation space in Australia.

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CHAPTER ONE

INTRODUCTION

The purpose of the study presented in this Thesis was to explore the utilisation of Edward de Bono's thinking tools by work teams in business organisations. The problem investigated by the study was the main concern of people who utilise de Bono's tools during work team occasions in a business organisation, with the term 'utilise' being defined as the act of using something in an effective manner¹. With this study a business organisation was deemed to be an organisation providing goods and/or services, therefore this included for-profit and not-for-profit entities and government agencies. Classic grounded theory (GT) was the research methodology used to conduct the study and the outcome from this research is presented in this Thesis as the Getting On-The-Same-Page Theory.

This Introduction to the Thesis includes background information and overviews of:

- i. Work teams and work team occasions;
- ii. Dr Edward de Bono and de Bono's thinking tools;
- iii. Gaps in current research the study aimed to address;
- iv. Classic Grounded Theory (GT) methodology;
- v. Rationale for selecting classic GT methodology;
- vi. Write-up and presentation of the Getting On-The-Same-Page Theory;
- vii. Overview: Getting-On-The-Same-Page Theory;
- viii. Summary: contribution to theory and praxis;
- ix. Summary: each chapter after Chapter One.

- i. Work teams and work team occasions

For at least four decades there has been a significant shift from work organised around individuals to team-based structures (Bell and Kozlowski 2010; Chin 2015). With this shift, work teams are now considered to be intrinsic to how 21st century organisations

¹ Cambridge Dictionary 2019, accessed July 4, <https://dictionary.cambridge.org/dictionary/english/utilization>.

operate. As Bell and Kozlowski (2010, 955) point out, “teams serve as the basic building blocks of modern organizations and represent a critical means by which work is accomplished in today’s world”.

Defining a Work Team

Sustained academic interest in the role and function of work teams has led to various definitions being formulated to distinguish work teams, as a feature of contemporary businesses, from any other group of people operating within the context of business organisations. However, there are core features common to most definitions. One or more people are involved; interdependent relationships form; there are one or more common goals and members undertake organisationally relevant tasks (Bell and Kozlowski 2010; Salas, Dickenson, Converse, and Tannenbaum 1992). In line with these core features the study undertaken for this Thesis adopted the definition provided by Johnson and Johnson (2000, 538):

A team is a set of interpersonal interactions structured to achieve established goals. More, specifically, a team consists of two or more individuals who (a) are aware of their positive interdependence as they strive to achieve mutual goals, (b) interact while they do so, (c) are aware of who is not a member of a team, (d) have specific roles or functions to perform, and (e) have a limited life span of membership.

Defining a Work Team Occasion

The ubiquitous presence of work teams in 21st century business organisations has become conflated with the pervasiveness of meetings (Baran et al. 2012; Bell and Kozlowski 2010; Chin 2015; Kauffeld and Lehmann-Willenbrock 2012). Work team meetings pervade life in the workplace as time-intensive experiences, with individuals working in business organisations typically spending a minimum of six hours a week in meetings, with one or more other people and managers in large organisations spending nearly 23 hours a week (Allen et al. 2014; Allen, Lehmann-Willenbrock, and Rogelberg 2015). With an estimated 25 million meetings per day in the United States of America alone, meetings in 21st century organisations, like work teams, are ubiquitous (Allen et al. 2014; Allen, Lehmann-Willenbrock and Rogelberg 2015; Baran et al. 2012; Beneshick and Lazzarra 2019; Rogelberg, Shanock, and Scott 2012).

In addition to the amount of time organisational personnel spend in meetings, estimates also indicate, a majority of business organisations commit 7% to 15% of their personnel budgets on meetings (Rogelberg, Shanock, and Scott 2012). Further to this, Rogelburg, Shanock and Scott (2012) point out meetings are a significant financial investment for organisations. Wasted time in meetings has a direct financial cost in the form of salaries associated with meeting participants' time, which for some organisations can be millions of dollars a year. In addition, there are less direct costs. This includes, opportunity costs when time wasted could be used more productively; costs associated with employee stress and job dissatisfaction, and costs associated with 'meeting recovery syndrome', this being, time spent by meeting participants retrospectively trying to deal with frustrations arising from critical meeting incidents or time-wasting meetings (Rogelberg, Shanock and Scott 2010).

With the advent of the COVID-19 pandemic in 2020, rather than being less ubiquitous, workplace meetings became more pervasive than ever before (Carroll and Conboy 2020; Soni 2020; Sidpra et al. 2020). Exponential innovation with information technology since around 2003, particularly on-line video conferencing, provided organisations with the means to rapidly respond to the COVID-19 crises, resulting in a substantial increase in work-based team meetings, discussions and conversations (O'Leary 2020; Soni 2020; Wiederhold 2020). This increase is demonstrated by the uptake of videotelephony services. For example, prior to the end of 2019 ten million people held regular meetings via the Zoom on-line meeting platform, by April 2020 however, this had increased to 300 million (Wiederhold 2020).

As time-intensive sense-making events meetings, in the substantive area of business organisations, can take various forms. These work-based episodes of interpersonal interaction include formal occasions, informal occasions, or improvisational occasions akin to a spontaneous discussion or conversation (Allen et al. 2014; Olien et al. 2015). All these forms of 'a meeting', as an interpersonal interaction between two or more people who identify themselves as members of a particular work team, are collectively referred to in this Thesis as 'a work team occasion'.

Contemporary Academic Research Focusing on Work Teams

The sustained trend towards team-based organisational structures and the ubiquitous nature of work team occasions, has significantly increased academic interest in the role and impact of work teams (Bennishek and Lazzara 2019; Kozlowski 2018; Rico, de La Hera, and Taberner 2011). Within several fields of business research, including organisational development, strategic human resources; management and leadership, a prominent contemporary focus is the relationship between the functioning of work teams and organisational productivity (Bell and Kozlowski 2010; Chin 2015; Sundstrom et al. 2000; Wellins, Byham, and Wilson 1991; Chin 2015; Baran et al. 2012; Devaraj and Jiang 2019).

Therefore, extensive research over at least two decades has paid particular attention to work team characteristics and improving work team performance. This has included investigating team cohesion and collaboration (Acton, Braun, and Foti 2019; Benishek and Lazzara 2019; Caniëls, Chiochio, and van Loon 2019; DeOrtientiis et al. 2013; Marques-Quinteiro et al. 2019); work team resilience (Chapman et al. 2020; Raetze 2020; Stoverink et al. 2020); work team creativity and innovation (Hülshager, Anderson, and Salgado 2009; Stollberger, West, and Sacramento 2017; Reiter-Plamon and Palms 2018; Nijstad and De Dreu 2002); work team conflict and resolution (Behfar et al. 2008; De Dreu and Van Vianen 2001; Humphrey et al. 2017; Jehn et al. 2013; Jehn, Rispens, and Thatcher 2010), work team diversity (Garcia-Prieto, Bellard, and Schnieder 2003; Horwitz and Horwitz 2007; Mohammed and Angell 2004) and work team cognition (Cooke, Gorman, and Winner 2007; Wildman, Salas, and Scott 2014; McNeese 2020; Tannenbaum and Salas 2020).

ii. Dr Edward de Bono and Dr Bono's thinking tools

Edward de Bono commenced university studies when he was fifteen; completed a Doctor of Medicine degree from Malta University when he was twenty, then obtained a psychology and physiology Masters' Degree and PhD in physiology from Oxford University and a PhD in Medicine from Cambridge University. For nearly twenty years de Bono lectured and conducted research at Oxford, Cambridge, London and Harvard universities. He has also been awarded several honorary doctorates and

professorships at various other universities, including a tenured professorship at Malta University since 1992 (Balakrishnan 2007; D'Angelo Fisher 2006; Dudgeon 2001; L-Università ta' Malta, n.d.; Powell 2007).

With a background in physiology and medical research, in the early 1960s, de Bono started focusing on the need for new thinking to counteract what he considered to be particular inefficiencies in the way the human brain processes information (de Bono 1969; Dudgeon 2001). Around this time, during an interview with *London Life* magazine, de Bono explained the need for 'another kind of thinking' that allowed a thinker to move laterally with their thinking to deliberately generate new approaches and alternatives on-demand, rather than having to wait for their brain to have an 'ah ha' moment. To more effectively describe this different kind of thinking, de Bono invented the term 'lateral thinking' (De Angelo Fisher 2006; Dudgeon 2001).

After the release of de Bono's seminal book *The Use of Lateral Thinking* in 1967 and the on-going invention of new thinking tools over almost five decades, de Bono is now widely considered to be the inventor of both the term and tools of lateral thinking (D'Angelo Fisher 2006; Dingli 2009; Dudgeon 2001; Hartnett 2016; Puccio et al. 2010; Walter 2017). In the mid-1970s de Bono also devised the CoRT (Cognitive Research Trust) program for the direct teaching of thinking in schools. The CoRT program has since been delivered world-wide to hundreds of thousands of children and young people (D'Angelo Fisher 2006; Dingli 2009; Dudgeon 2001; Merrotsy 2017; Perkins 1992; Walter 2017). In 1997 a selection of tools devised for this program comprised the *Edward de Bono's DATT™: Direct Attention Thinking Tools* training program for individuals and groups working in the context of business organisations (de Bono 1997a). This course is now known as *Edward de Bono's The Power of Perception™: Ten Thinking Tools for Making Better Business Decisions* (de Bono 2009c).

In 1986 the *Six Thinking Hats* was published. This book presented de Bono's Six Thinking Hats methodology for particular use by groups of two or more people (de Bono 1986, 1992a, 1999c, 2009f). Since the publication of the first edition of *The Six Thinking Hats*, in addition to de Bono's CoRT program for the direct teaching of thinking in schools, the Six Thinking Hats methodology has proliferated through

educational systems and now used by children and young people throughout the world (Dudgeon 2001; Hartnett 2016; Kivunga 2015; Merrotsy 2017; Pugh 2009).

Edward de Bono's Thinking Tools Training

To ensure the cognitive techniques designed by Dr Edward de Bono are applied by adults as intended, there is a global network of organisations responsible for managing the training manuals and accreditation of instructors for the delivery of Edward de Bono authorised courses (Edward de Bono Ltd., n.d.; de Bono Thinking Systems, n.d.). Training has also been delivered at undergraduate and postgraduate level by the Edward de Bono Institute for the Design and Development of Thinking at Malta University, since the Institute was established in 1992 (L-Università ta' Malta, n.d.). From the early 1990's de Bono authored courses have also been delivered worldwide to hundreds of thousands of adults. By 2020 over 700 certified trainers, in 74 countries on six continents, were delivering training for individuals and groups to correctly utilise de Bono's tools within the context of business organisations (D'Angelo Fisher 2006; de Bono 1992a; de Bono Thinking Systems, n.d.; Edward de Bono Ltd., n.d.; Dudgeon 2001; Walter 2017).

Correct Use of Edward de Bono's Thinking Tools

The term 'utilise' is constantly applied in this Thesis when referring to the use of de Bono's tools. It is therefore pertinent to explain why the term 'utilise' has been adopted, rather than the term 'use'. 'Utilise' indicates the act of using de Bono's tools in an effective way that is also the correct way. With this Thesis the 'correct way' is deemed to be, as prescribed in training courses authored by Dr Edward de Bono. As explained in more detail in Chapter Six, this does not mean all users of de Bono's tools attend de Bono authored training courses. However, people involved in the study presented in this Thesis used the tools correctly because they had been helped to utilise the tools by someone who had either attended a de Bono authorised training course, or was a de Bono Thinking Systems certified trainer.

De Bono's Thinking Tools Utilised by Study Participants

People who participated in the study presented in this Thesis were users of de Bono's tools who had experience utilising these tools on a regular basis during work team occasions, within the context of a business organisation. This experience ranged from a minimum period of four months to more than 20 years.² All participants utilised de Bono's Six Thinking Hats, as prescribed by *Edward de Bono's Six Thinking Hats®: Tools for Parallel Thinking®* (de Bono 2009f). Participants also utilised several, if not all tools, from the Power of Perception tool set, as prescribed by *Edward de Bono's The Power of Perception™: Ten Thinking Tools for Making Better Business Decisions* (de Bono 2009b). In addition, participants utilised several, if not all tools, from the Lateral Thinking tool set as prescribed by *Edward de Bono's Lateral Thinking: Fast Track to Creativity* (de Bono 2009a). This included all participants utilising de Bono's *Purpose Focus* Lateral Thinking tool and many participants utilising de Bono's *Area Focus* Lateral Thinking tool. Most study participants also utilised *TEC*, a thinking tool originating from the de Bono Cognitive Research Trust (CoRT) thinking program for schools (Devine Media, n.d.).

Terms Associated with the Work of Edward de Bono

Since 1967, Edward de Bono has variously referred to the outcomes of his work as methods, frameworks, techniques or new tools for thinking (de Bono 1992a, 1991d, 2009a, 2009b, 2009c). From de Bono's perspective, a thinking tool is a specific cognitive function that can be learned and applied at will (de Bono 1969). The organisations responsible for publishing and accrediting instructors to deliver de Bono authorised training courses refer to de Bono's tools variously as thinking systems, methods, techniques, tools or thinking tools (de Bono Thinking Systems, n.d.; Edward de Bono Ltd., n.d.; L-Università ta' Malta, n.d.). De Bono authored training manuals for adults specifically refer to de Bono's various methods as 'tools', 'tools for thinking' or 'thinking tools; (de Bono 2009a, 2009b, 2009c).

² Detail regarding the length of time study participants had utilised de Bono's thinking tools, prior to the study or during the study if this was the first time they had utilised the tools, is provided in Chapter Five.

Participants involved in the study presented in this Thesis most often referred to de Bono's methods as "the tools", "tools" or "thinking tools". This Thesis also uses the terms 'thinking tools', 'tools', 'methods' or 'methodology' when referring to de Bono's work. When referring to a specific thinking tool or set of tools, the specific name of the tool or toolset is used, as designated in de Bono authored training manuals or various other publications authored by Edward de Bono.

iii. Gaps in current research the study aimed to address

Despite many hundreds of thousands of adults being trained world-wide since the first de Bono authorised course was established over 25 years ago, there is a paucity of rigorous studies focusing on the correct use of these tools by groups or work teams within the context of business organisations (Burgh 2014; D'Angelo Fisher 2006; Hartnett 2016; Higgins 2015; Merrotsy 2017; Moseley et al. 2005; Puccio and Cabra 2010; Sternberg and Lambert 1999).

Dingli (2001) provides a literature review of twenty-six studies focusing on the utilisation of de Bono's thinking tools with unpublished academic research and published non-academic studies focusing on utilisation of de Bono's tools and methods up until 2001. However, only five of these focus on the utilisation of de Bono's tools by adults in a business context. Most of these are unpublished non-academic accounts of the benefits of de Bono's tools being used in an organisational setting, with only two detailing which de Bono's tools were utilised and only one of these referring to specific outcomes from the utilisation of de Bono's tools. These outcomes are only describe in a general way however, such as 'improved decision-making', 'better teamwork', 'better communication' and 'target setting'.

After comprehensive investigation by the Researcher of academic databases focusing on research within the fields of business, business and innovation, organisational development, business leadership and management and more particularly work teams and work team occasions, prior to conducting the study presented in this Thesis; during the study and during the write-up of the Getting-On-The-Same-Page Theory in this Thesis, it is apparent there is a significant paucity of rigorous academic research on

the utilisation of de Bono's thinking tools by work teams in a business organisation context.

Other Issues Regarding Academic Research and De Bono's Tools and Processes

It is also apparent, that academic research and non-academic studies undertaken on the utilisation of de Bono's tools by work teams or groups of people within the context of business organisations, is contentious. This is because, most of the people involved in these studies have not utilised de Bono's tools correctly. The Researcher became concerned about the lack of quality research focusing on the correct use of de Bono's tools while investigating a 2005 research project, conducted at a cost of AU\$635,690 by a consortium of two European universities; an independent research institute, and three industry partners (University of Udine, n.d.).

The project focused on evaluating the use of de Bono's PO and Movement Lateral Thinking tools and the Six Thinking Hats by work teams in industrial enterprises operating in four European countries. The study involved eleven professors and four researchers, resulted in nineteen case studies, with seven of these un-published studies described on the project website. These particular studies involved a total of ten work teams using de Bono's tools, with these teams ranging from six to sixteen people. PO and Movement Lateral Thinking tools were used to generate ideas, and the Six Thinking Hats to evaluate at least one of these ideas. It was very evident this research was problematic in regards to rigorous evaluation of the use of de Bono's tools. Firstly, several groups did not use de Bono's tools correctly. Secondly, after short introduction sessions explaining the Six Thinking Hats, only a few of which appeared to be conducted by personnel trained in the correct use of these tools, work teams involved in the published case studies only attempted to use these tools for periods ranging from thirty to ninety minutes. With the results of surveys conducted with these participants provided as evidence of outcomes from the use of de Bono's tools by work teams, the lack of rigour regarding the correct utilisation of de Bono's tools with this substantial research project is a significant concern.

Also, after lengthy investigation, the Researcher could only find two Doctorate-level studies conducted on the utilisation of de Bono's tools. The first being an unpublished

PhD thesis in the substantive area of education, focusing on the direct teaching of Edward de Bono's CoRT 1 program with children in their last year of primary school (Dingli 2001, 3). The second being an unpublished PhD thesis focusing on the Edward de Bono's concepts, ideas and thinking tools that have potential for use within design processes and in particular the design thinking framework (Craig 2015). The Researcher is therefore confident this Thesis is the first PhD thesis focusing on the utilisation of de Bono's tools within the substantive area of business organisations.

iv. Classic Grounded Theory (GT) methodology

Grounded theory methodology was originally developed by American sociologists Barney Glaser and Anselm Strauss. In 1967, Glaser and Strauss co-authored *The Discovery of Grounded Theory: strategies for qualitative research* (Glaser and Strauss 1967). By explaining how new theory could be generated from data collected from people experiencing what was going on in a substantive area, rather than testing existing theory, this seminal publication set the foundations for the development of grounded theory as a research methodology, (Birks and Mills 2015; Bryant 2017; Holton 2008; Martin and Gynnild 2012). Grounded theory, as promulgated by Glaser, is now referred to as 'Glaserian' or 'classic Grounded Theory', albeit Glaser continues to mostly use the term 'Grounded Theory' (Annells 1996; Birks and Mills 2015; Bryant 2017; Cutcliffe 2005; Holton 2008; Locke 1996; Martin and Gynnild 2012).

Regardless of which term is used, classic grounded theory always adheres to the tenets and methods of grounded theory as a post-graduate research methodology specifically prescribed by Glaser (Holton 2008; Holton and Walsh 2017; Martin and Gynnild 2012; Stern and Poor 2011). The study conducted for presentation in this Thesis was informed by the work of Glaser and Strauss (1967) and conducted in accordance with the tenets of classic grounded theory as promulgated by Glaser (1978, 1992, 1994, 1998, 2001, 2002a, 2003, 2004, 2005b). It is therefore presented as a classic GT study, following the tenets and methods of classic GT research. Drawing on Glaser (1978, 1992, 1998, 2012, 2013), Glaser and Holton (2004), Holton (2008), Holton and Walsh (2017) and Walsh et al. (2015). Terms and definitions associated with classic GT, and consistently used in this Thesis, are explained in figure 1.1.

CLASSIC GROUNDED THEORY KEY TERMS AND DEFINITIONS

<p>CONSTANT COMPARATIVE METHOD</p> <p>Classic GT analytical data analysis method involves constant comparison of indicators. Indicators (incidents) being 'pieces' of empirical data identified by the researcher when 'fracturing' data that is being collected into meaningful pieces for analysis.</p>
<p>SUBSTANTIVE CATEGORY</p> <p>A substantive category is a stand-alone conceptual element of theory, generated by the classic GT researcher, using the constant comparative method to compare indicators. A category is also referred to as a concept.</p>
<p>INTERCHANGEABILITY OF INDICATORS and THEORETICAL SATURATION</p> <p>Concomitant data collection and constant comparison of indicators is undertaken until interchangeability of indicators is achieved; no new properties or dimensions of a category are emerging from constant comparison, and theoretical saturation of the category has occurred.</p>
<p>SUBSTANTIVE CODING – first type of classic GT coding procedure for development of theory</p> <p>OPEN CODING – first kind of Substantive Coding</p> <p>Line-by-line constant comparing of indicators to each other. Researcher focuses on patterns amongst indicators to generate possible categories. With more data, already-generated categories are compared to new indicators.</p> <p>SELECTIVE CODING – second kind of Substantive Coding</p> <p>Commences after a core category emerges. This is the category to which all other categories appear to be related. Data collection and coding is then delimited to data and coding relevant to the core category and related categories, for saturation.</p>
<p>THEORETICAL SAMPLING</p> <p>Making decisions about where to find data and what data to collect next, to continue the development of theory. These decisions are not made prior to starting a classic GT study, only after the emergence of a core category.</p>
<p>THEORETICAL CODING – the second type of classic GT coding procedure</p> <p>Using theoretical codes (theoretical concepts) to relate substantive saturated categories to each other as hypotheses, to develop a classic GT as an end-product. After a core category emerges, the researcher starts reading widely across many disciplines with theoretical sensitivity, to find appropriate theoretical codes.</p> <p>THEORETICAL CODES</p> <p>Concepts derived from social theories or theories of other disciplines, not concepts (categories) inducted from empirical data that has been collected during the classic GT study, as with substantive coding.</p>
<p>MEMOS</p> <p>Theoretical notes written by the researcher. Written at any time, memos can be a few sentences or many pages, to capture the researcher's emerging ideas about substantive categories and theoretical codes. Memoing is undertaken in parallel with coding and analysis and essential to the development of a classic GT.</p>
<p>THEORETICAL SORTING</p> <p>Hand-sorting all memos kept by the researcher. This involves precisely locating each memo, to develop an integrated theory with theoretical completeness. Ensures an integrated set of hypotheses for articulation of a theory grounded in data. Sorted memos become the outline and content for presentation/publication of the classic GT, including presentation as a PhD thesis.</p>
<p>WRITING UP A CGT</p> <p>Theoretical sorting generates more memos on a higher conceptual level for further integration. It also drives further integration of relevant literature into the theory and continues throughout the process of 'writing up' the piles of sorted memos. Writing up a classic GT for publication is a vital part of classic GT methodology. There is a logic of <i>construction</i>, <i>shape</i> and <i>conceptual style</i> that classic GT researchers are expected to follow. This includes, how the classic GT is introduced to readers and the specific structure of paragraphs and chapters.</p>

figure 1.1

Classic Grounded Theory key terms and definitions.

Substantive Grounded Theory and Formal Theory

When a researcher adheres to Glaser's prescribed processes, this results in the presentation of a new theory as the emergent 'product' of the study. This outcome is also variously referred to as 'a classic grounded theory', 'a grounded theory', a GT, or a classic GT. Therefore, whenever the term 'Getting On-The-Same-Page Theory' is used in this Thesis, given this is the product of a classic GT study conducted for presentation in this Thesis, it should be assumed this is referring to the Getting On-The-Same-Page Theory as a classic GT.

In addition to the Getting On-The-Same-Page Theory being presented in this Thesis as a classic GT, and therefore the outcome of a classic GT study, this Theory is also presented as a substantive theory. A substantive theory being "a grounded theory developed within a specific setting and context generalisable to a limited number of similar settings and groups" (Holton and Walsh 2018, Glossary). Glaser and Strauss (1967, 114) also explain, if an analyst starts with raw data the result will be a substantive theory, "a theory for the substantive area" on which the analyst has done research. Furthermore, substantive theory is not the same as formal theory. A formal theory requires comparison of data from many substantive areas to raise the theory to an abstracted level not associated with any one substantive context (Glaser and Strauss 1967, 82).

Glaser (1978, 144) provides an example of the difference between substantive and formal theory:

For example, in an analysis of the organizational careers of scientists, the focus was substantive (scientists' careers), not formal (organizational careers). ... Generation of the substantive theory can also be furthered by comparisons of organizational careers of scientists with other substantive cases within the formal area of organizational careers, such as careers of lawyers or military officers.

However, if the focus of the level of generality is on generating a formal theory, the comparative analysis is made among different kinds of substantive cases and their theories, which fall within the formal area, without relating the resulting theory back to any one substantive area. The focus of comparisons, to continue with our example, is now on generating a formal theory about a single substantive case of an organizational career.

Given the distinction between substantive and formal theory, Getting On-The-Same-Page Theory is presented as a substantive theory, with no suggestion it could be developed into formal theory. This is because it may not be appropriate to ever propose a comparison of multiple substantive cases of groups utilising de Bono's tools in many social contexts (for example: family life, school playgrounds, parliament, jury rooms, group sport), would constitute the development of Getting On-The-Same-Page as a formal theory of the utilisation of thinking tools per se (this being all thinking tools, not just those invented by de Bono).

Substantive Grounded Theory as New Knowledge

As Glaser (2002a, 16) points out, researchers who use the classic GT method are not "story making" they are generating theory where there was none. As explained earlier (INTRODUCTION, point iii), prior to the study conducted for presentation in this Thesis, no rigorous research had been conducted at PhD level on the correct utilisation of de Bono's tools by people working in business organisations. Therefore, by implication, there are no extant theories about the utilisation of de Bono's tools in this context. As a theoretical explanation of how the main concern of users of de Bono's tools within business organisations is resolved, Getting On-The-Same-Page as a substantive grounded theory, is therefore also presented as new knowledge.

v. Rationale for selecting classic GT methodology

With business studies being considered a broad field of research within the ambit of human and social sciences, researchers conducting a business study are expected to align their research methodology with their chosen philosophical perspective, as is expected with all researchers conducting social science research (Bryman 2004; Creswell 1998; Creswell 2009; Creswell and Poth 2018; Crotty 1998; Denzin and Lincoln 2011; Lincoln and Guba 1985; Ravitich and Riggan 2016; Saunders, Lewis, and Thornhill 2016). Therefore, when applying for PhD Candidacy to conduct a business study, the Researcher was expected to select a methodology that aligned appropriately with the Researcher's philosophical perspective. To fulfill this requirement the Researcher chose classic GT for two reasons. Firstly, because of the flexibility afforded a classic GT researcher to conduct research with whatever

philosophical perspective they wish to adopt (Glaser 2005). Secondly, because of the methodological objective, unique to classic GT, to protect a process of ‘emergence’ and generate theory as an ‘emergent’ phenomenon (Glaser 1978, 1992, 1994, 2001, 2005b). The Researcher perceived this objective as being highly compatible with the commitment to develop a philosophical perspective aligned with complexity philosophy. These particular reasons for selecting classic GT, as an appropriate methodology for the study presented in this Thesis, are further elucidated in Chapter Four, Section 4.2.1.

As already indicated, the Researcher also selected classic GT because this methodology is very suitable for the generation of new theory from original data, particularly when there is no extant theory in the substantive area under investigation (Holton 2008; Holton and Walsh 2017). Because of the paucity of rigorous research on the correct utilisation of de Bono’s tools by people working in business organisations, the Researcher considered classic GT as the most suitable methodology for the first PhD study to be conducted within this context. Classic GT methodology gave the Researcher the mechanism to generate new knowledge and this was deemed completely appropriate for the study. Furthermore, the Researcher chose classic GT methodology because new theory that is generated from a problem or issue of concern to people participating in everyday activities, as is the case with classic GT, provides a valuable theoretical foundation for bringing about change and improvements in practice (Glaser 1978, 1998). As the first PhD study focusing on the correct, everyday utilisation, of de Bono’s thinking tools in a work team context, the Researcher was keen to ensure the study contributed to both theory and praxis.

vi. Write-up and Presentation of Getting On-the-Same-Page in This Thesis

The write-up of a classic GT depends entirely on memo writing that has been integral to all phases of the research, therefore it is a carefully considered “construction job” and doesn’t just “flow from a witty mind” (Glaser 1978, 130). However, because the write-up of a classic GT has the character of a “slice of reality” rather than an explanation, it can be erroneously perceived as fixed conceptual description, particularly with the write-up of memos being “the theory of a core variable which freezes the on-going moment” (Glaser 1978, 130). Therefore, as a classic GT, the

Getting On-The-Same-Page Theory is not presented in this Thesis as conceptual description, rather it has been written-up as a constructed theory that is modifiable. It is not a collection of accurate facts or research findings. This is because the Getting On-The-Same-Page Theory is presented in accordance with the classic GT intention to provide “straightforward conceptualisations, integrated into theory - a set of plausible, grounded hypotheses”, with these grounded statements “to be checked out; ... not claimed as facts” (Glaser 1978; Glaser and Holton 2004).

As with all classic GT studies, the write-up of the Getting On-The-Same-Page Theory has evolved from many drafts that have been constantly refined following classic GT methodology. Also, adhering to the classic GT dictum to “write conceptually” (Glaser 1978, 133), this write-up consists of theoretical statements regarding concepts, and the relationship between concepts, not descriptive statements about people. Furthermore, with classic GT the terms ‘concepts’ and ‘categories’ are interchangeable. The relationship between concepts is prescribed by Glaser (1998, 51), as being “emergent conceptual categories and their properties integrated into hypotheses with the aim of presenting a multivariate theory”. Holton and Walsh explain (2017, 212) a category as the “abstraction of individual concepts as a latent pattern discovered in research data” and a core category as “the category (i.e. theoretical model) that appears to explain how the main concern in the area under study is processed, managed or resolved, by its accounting for much of the variation in the way the main concern is addressed”.

Glaser (1978, 1998, 2001) also points out descriptive statements as indicators of a conceptual category are only used for illustration and imagery to help support a concept and introduce it, therefore these descriptions should be kept to a minimum and only for support purposes. An example of a descriptive statement being, a quote from study participant. Also, the write-up for presentation/publication of a new theory, as the outcome of a classic GT study, is a vital part of the methodology and should adhere to classic GT conventions (Glaser 2012, 6). There is a logic of construction to be followed and a general ‘shape’ determining how a classic GT is introduced and written up for presentation. A write-up needs to be conceptually about the relationship between concepts, not descriptive statements about people (Glaser 1978).

Furthermore, the construction of a classic GT generally requires that the overall theoretical framework and principle theoretical statements are presented abstractly at the beginning of the presentation/publication (Glaser and Strauss 1967, 228). This is followed by the first chapter as an explanation of the structure of the thesis chapters and/or an overview of the substantive classic GT. The remaining chapters consist of a chapter on classic GT methodology/methods, followed by a chapter/chapters explaining the classic GT being presented, in detail. A classic GT study is therefore structured differently than the structure a reader might expect with a business thesis.

This Thesis aims to meet the normative standards of writing-up and presenting a classic GT, while also adhering as much as possible to the normative standards for writing-up a business Thesis. Glaser (1978) prescribes the ‘shaping’ of the presentation of a classic GT. This presentation commences with an overview of the classic GT being presented, for the purpose of informing a reader about what to expect from a Theory when it is explained later in more detail. Adhering to this methodological expectation, a broad overview of the Getting On-The-Same-Page Theory is presented in this Introduction to Chapter One. Firstly, this overview introduces the research problem discovered by the study as the main concern of people utilising de Bono’s tools within the substantive area of business organisations. Holton and Walsh (2019, 213) explain the term ‘the main concern’ as “the issue that emerges across the coded data as the prime motivator, interest, or problem in the research setting”. Secondly the overview of the Getting On-The-Same-Page Theory, provides an insight into the general nature of the core category of the Theory and provides a general explanation of the properties of this core category. Thirdly, it provides an outline of the integrated nature of these properties.

vii. Overview: Getting On-The-Same-Page Theory

When de Bono’s tools are not utilised by a work team during a work team occasion, users who are involved in the occasion perceive it as being a disturbingly different experience, from a work team occasion when the tools are utilised.³ They feel stressed,

³ As explained earlier in this Introduction, with the study conducted for presentation in this Thesis, a user of de Bono’s tools was considered to be someone who utilises de Bono’s tools correctly; correct utilisation was deemed to be the utilisation of Edward de Bono’s tools as prescribed by training courses authored by Edward de Bono and the term ‘utilise’ was defined as the act of using something in an effective way.

frustrated, overly concerned, or at the very least annoyed, when they are involved in this kind of occasion. This is because they experience one or more particular types of cognitive interplay that indicates to them a work team is not-on-the-same-page. As a convenient term devised during the write-up of the Getting On-The-Same-Page Theory for presentation in this Thesis, ‘cognitive interplay’ denotes the complex interactive mix between personal cognition and concomitant overt behaviours that occur when one or more people engage in interpersonal communication during work team occasions.

The types of cognitive interplay that distress users of de Bono’s tools are *polarising*, *powering*, *holding-back* and *bouncing around*. From the perspective of users, none of these occur during work team occasions when de Bono’s tools are utilised and at least one or more of them always occur when the tools are not utilised. Whereas different types of cognitive interplay, these being *collective purposing*, *collective aligning* and *collective equalising*, are always perceived by a user when the tools are utilised and always indicate to them a work team is on-the-same-page.

To facilitate easier reading ‘the not-on-the-same-page problem’ is a generic term used in this Thesis for the disturbingly different experience users of de Bono’s tools have each time they are involved in work team occasions when these tools are not utilised, as compared to when these tools are utilised during work team occasions.

Experiencing The Not-On-The-Same-Page Problem

While meetings and other work team occasions are ubiquitous in business organisations, from the perspective of users, the utilisation of de Bono’s tools is not at all ubiquitous. Therefore, in addition to impacting significantly and negatively on their personal ability to be productive, they believe the not-on-the-same-page problem negatively impacts on the productivity of all work teams that don’t utilise de Bono’s tools. Users also worry about the negative impact this problem has on their organisation’s overall productivity and their role in perpetuating a problem which they perceive as “*plaguing*” all business organisations. Successfully resolving their concern, about the emotional stress they feel each time they experience the not-on-the-same-page problem, does not however occur immediately a user is introduced to the

tools. Firstly, this is because they have no experience utilising de Bono's tools either on their own or with others. Secondly, to resolve their main concern specific changes need to occur in their cognitive capability that enable them to utilise de Bono's tools during work team occasions, without the help of anyone else.

Resolution of a User of de Bono's Tools Main Concern

The main concern of people utilising de Bono's tools in business organisations is resolved with the *getting-on-the-same-page* cognitive capability process. This process evolves over time and consists of three sequential, cumulative stages of change in a user's cognitive capability, these stages being: Tooling-Up, Tensing and Enabling. Each of these stages consist of *structuring*, *bettering*, *suppressing*, *straining* and *regulating*.

Structuring

Structuring characterises changes in a user's cognitive capability when they start utilising the tools after they have been introduced to de Bono's tools by a more knowledgeable other. A more knowledgeable other is someone who has capability with a cognitive skill and guides a less capable person to develop that skill within the zone of proximal development. The zone of proximal development is the difference between what a learner can do with help from a more knowledgeable other and what they can do without help from a more knowledgeable other (Allal and Ducry 2000; Vygotsky 1978). In the context of work teams utilising de Bono's tools in business organisations, a more knowledgeable other is someone who utilises de Bono's tools correctly⁵.

Structuring consists of three phases, *structuring new thinking* which occurs during Tooling-Up and Tensing, *structuring familiar thinking* which occurs during Tensing and Enabling, and *structuring nuanced thinking* which occurs during Enabling. Particular changes with cognitive capability during Tooling-Up, Tensing and Enabling

⁵ As explained earlier in this Introduction to Chapter One, 'utilise' is defined as using something in an effective way and correct utilisation of de Bono's thinking tools is deemed to be the utilisation of the tools in an effective way, as prescribed by training courses authored by Edward de Bono.

also occur during these phases of *structuring* with *cognitive languaging*, *cognitive disciplining*, *cognitive focusing*, *cognitive levelling* and *cognitive listening*.

With *cognitive languaging* a user experiences changes to the lexicon they use with their personal thinking when they utilise de Bono's tools. With *cognitive disciplining* they experience changes with the orderliness of their thinking when they utilise de Bono's tools and with *cognitive focusing*, they experience changes with their personal cognitive intent when they utilise de Bono's Purpose Focus Tool specifically. With *cognitive levelling* they experience changes with their personal cognitive modus operandi, when they utilise the tools with one or more other people during a work team occasion. With *cognitive listening* enabled users experience changes with their cognitive capability which result in them clearly comprehending another person's thinking, while the other person is articulating their utilisation of a de Bono tool.

The consistency of change in cognitive capability with *cognitive languaging*, *cognitive disciplining*, *cognitive focusing*, *cognitive levelling* and *cognitive listening* is however, variable. With *weakest structuring* change in cognitive capability, with the utilisation of de Bono's tools, is always inconsistent and therefore unstable. With *weak structuring* change is sometimes consistent and therefore sometimes stable and with *moderate structuring* change is mostly consistent and therefore mostly stable. With *strong structuring* change is always consistent and stable. With *robust structuring*, change in cognitive capability with primary and secondary utilisation of de Bono's tools, is always consistent and always stable.

Bettering

Bettering is the disposition a prospective user or user of de Bono's tools has towards learning. However, the strength of this disposition varies with each prospective user or user. With *no bettering* the strength of a prospective user's disposition towards learning is underpinned by their belief there is no need to learn anything new and different from what they already know, feel comfortable with or have in some way experienced. With *mild bettering* the strength of a user's disposition towards learning is underpinned by their belief learning is useful until it gets too difficult to justify the effort it requires. With *strong bettering* the strength of a user's disposition towards

learning is underpinned by their unwavering belief that making an effort to learn is always necessary and valuable for their personal growth and development.

Straining

When a user is introduced to the tools, and when they utilise the tools at any time after this introduction, they experience *straining*. *Straining* is the confluence of emotional discomfort and utilisation of de Bono's tools. When a prospective user is introduced to the tools, they always react to this experience with some level of stress. This is because they have to learn thinking tools and processes that are entirely unfamiliar to them; they are thrust into an unspecified learning opportunity when they start utilising the tools, and they have to deal with their faltering self-confidence. After they have been introduced to the tools users continue to feel some level of discomfort. This is because they always feel there is something new to be learnt from the utilisation of the tools over time. The amount of *straining* that hinders a user's utilisation of the tools is variable, however. *Minimum straining* is the confluence of discomfort and utilisation of the tools at a level that never hinders a user's utilisation of the tools. *Maximum straining* is the confluence of discomfort and utilisation of the tools at a level that always hinders a user's utilisation of the tools. Furthermore, what constitutes 'minimum' or 'maximum' is always relative to each individual user.

Suppressing

Suppressing is self-induced tempering of *straining* by a user as they utilise de Bono's tools. The amount of tempering a user needs to apply to stop the emotional discomfort they feel each time they utilise one or more tools, from hindering their utilisation, is also relative to each individual user and also variable. *Robust suppressing* is effective self-induced tempering, by a prospective user or user, of all amounts of *straining*. *Frail suppressing* is ineffective tempering of all amounts of *straining* by a user tools and *nil suppressing* is no tempering by a prospective user of even *minimum straining*.

Regulating

Regulating is the self-instigated guidance of their thinking by a user of de Bono's tools when they utilise the tools. Prior to being introduced to the tools, users seek actionable solutions to issues or problems as quickly as possible. They consider this to be the normal and correct way to deal with issues in a business environment. With *regulating*, as they utilise a de Bono tool, their thinking slows down and they start thinking about their thinking in ways not previously experienced. Different levels of *regulating* emerge during the *getting-on-the-same-page* cognitive capability process. *Mild regulating* is the self-initiated guidance of their thinking by a user, while they utilise the tools, that they sometimes undertake consciously. *Moderate regulating* is the self-initiated guidance of their thinking by a user that they always undertaken consciously while they utilise the tools. *Strong regulating* is the self-initiated guidance of their thinking by a user while they utilise the tools, that they always undertake consciously, to deliberately activate improvements with their thinking.

Tooling Up: Stage One of Getting-On-The-Same-Page

As users start to utilise the tools during Tooling-Up, particular changes with their cognitive capability are experienced as “*new thinking*”. Therefore with *structuring new thinking* during Tooling-Up, changes in a user's cognitive capability when they start utilising the tools, as characterised by *cognitive languaging*, *cognitive disciplining*, *cognitive focusing*, *cognitive levelling*, are experienced by users as significant changes in the way they talk about their thinking; how they organise their thinking; how they think about issues they want or need to deal with, and how they personally think during work team occasions involving one or more other people, who are also utilising the tools.

Like all stages of the *getting-on-same-page* cognitive capability process, Tooling-Up can also be disrupted at any time. There are possibly many more reasons for the *getting-on-the-same-page* cognitive capability process to continue or discontinue, than those discovered by the study conducted for this Thesis. However, with analysis of the data collected for the study and saturation of the properties of the core category strong causal relationships were discovered, between particular dimensions of *bettering* and

other properties of the core category, which explicate both the continuation and termination of the process during all stages of the process, and therefore during Tooling-Up prior to Tensing commencing as the second stage of the process.

Termination of Getting-On-The-Same-Page before Tensing Commences

If *no bettering* is activated when a prospective user is introduced to de Bono's tools, *maximum straining* occurs immediately and there is *nil suppressing*. When *nil suppressing* occurs, there is no self-induced tempering of *maximum straining* and *blocking* occurs. With *blocking* there is intentional non-utilisation of the tools, any efforts to be helped by a more knowledgeable other are rejected by a prospective user, and the *getting-on-the-same-page* cognitive capability process never gets started. Also, if during Tooling-Up *frail suppressing* occurs with a user with *mild bettering*, tempering any discomfort they feel when they utilise de Bono's tools gets less and less and eventually *closing down* occurs. With *closing down* a user with *mild bettering* disengages from any utilisation of the tools, other than what they have undertaken up until this time, unless they are required to utilise the tools by someone with the authority to stipulate this requirement. Nevertheless, when *closing down* occurs the *getting-on-the-same-page* cognitive capability process is terminated.

When neither *blocking* nor *closing down* occurs Tensing as the second stage of the *getting-on-the-same-page* cognitive capability process commences.

Commencement of Tensing

Tensing commences when *distinguishing* emerges. This happens when the consistency of change in a user's cognitive capability is *weakest structuring* and *mild bettering* or *strong bettering* are activated, at the time a user starts utilising the tools and then maintains utilisation. Also, for *distinguishing* to occur *robust suppressing* must keep *straining* to a level of *minimum straining* and *mild regulating* has to transition to *moderate regulating*.

With *distinguishing* a user starts differentiating between *the* types of cognitive interplay they perceive as indicating a work team is not-on-the-same-page, these being

polarising, powering, holding-back and bouncing-around and the types of cognitive interplay they perceive as indicating a work team is on-the-same-page, these being *collective purposing, collective aligning* and *collective equalizing*.

Tensing: Stage Two of Getting-On-The-Same-Page

When *distinguishing* emerges and Tensing commences, this causes *angst-ing*. When a user of de Bono's tools with either *mild bettering* or *strong bettering* perceives *polarising, powering, holding-back* and/or *bouncing-around* occurring during a work team occasion they always feel some level of emotional stress. *Mild angst-ing* is a tolerable level of stress and *extreme angst-ing* is an intolerable level, with what constitutes 'tolerable' or 'intolerable' being relative to each user. A user reacts to feeling *mild angst-ing* with *fiddling* and more specifically *informal fiddling*.

Termination of the Getting-On-The-Same-Page before Enabling Emerges

With *informal fiddling* users make spontaneous, reactive attempts to stop *polarising, powering, holding-back* or *bouncing-around* from occurring during work team occasions they are involved with and de Bono's tools are not being utilised. However, when these attempts have no effect or no lasting effect, their *mild angst-ing* transitions to *extreme angst-ing* when they perceive the not-on-the-same-page problem during work team occasions. When it gets too difficult for a user with *mild bettering* to deal with their *extreme angst-ing*, *rationalising* emerges.

Rationalising

With *rationalising* a user with *mild bettering* starts developing plausible reasons for abandoning *informal fiddling*. *Rationalising* causes their utilisation of de Bono's tools to wain and this causes less *regulating*. With their *regulating* waning, their *mild bettering* increases and they make less and less effort to learn anything new with their utilisation of the tools. This causes *frail suppressing*, therefore control of any discomfort they may feel at times when they utilise the tools is ineffectual, causing less *moderate structuring*. Eventually, with their sustained *rationalising*, their *extreme angst-ing* reaches a tipping point and *closing down* emerges.

Commencement of Enabling

When their *informal fiddling* has no effect or no lasting effect and their *mild angst-ing* transitions to *extreme angst-ing*, a user of de Bono's tools with *strong bettering* doesn't try and find reasons to abandon their efforts to stop the not-on-the-same-page problem from occurring during work team occasions when de Bono's tools are not utilised. Rather than *rationalising* developing, their *informal fiddling* transitions to *formal fiddling*. Their self-initiated attempts to stop *polarising*, *powering*, *holding-back* and/or *bouncing-around* therefore become pre-mediated rather than reactive. This means, prior to being involved with occasions that they know will involve a work team not being on-the-same-page, they think about what they can do to stop these types of cognitive interplay from occurring. With their formal *fiddling* causing more *structuring* their *moderate structuring* transitions to *strong structuring* and *structuring familiar thinking*, the second stage of *structuring*, commences. With *strong structuring* their utilisation of de Bono's tools is always consistent therefore always stable. With this stability of change occurring with their utilisation of the tools *strong bettering* continues, this causes more *maximum suppressing*, and this causes more *minimum straining*. Their *strong structuring* also causes *mild regulating* to transition to *moderate regulating*.

With changes in their cognitive capability continuing unabated, as they continue to utilise de Bono's tools, a user with *strong bettering* gets even more perceptive to the differences between a work team occasion when de Bono's tools are not being utilised and one when the tools are being utilised. Eventually, at whatever time is relative to them, their constant experience of *polarising*, *powering*, *holding-back* or *bouncing-around*, during work team occasions when the tools aren't utilised, causes their *extreme angst-ing* to eventually reach a tipping point and *taking-it-on* emerges, rather than *closing down*. When *taking-it-on* occurs, Enabling commences as the third and last stage of the *getting-on-the-same-page* cognitive capability process.

Enabling: Stage Three of Getting-On-The-Same-Page

With *taking-it-on* a user of de Bono's tools with *strong bettering* commits to helping people in business organisations utilise de Bono's tools. Their *formal fiddling* still

continues, however a user's rationale for introducing people to de Bono's tools changes. In addition to looking after their own well-being, by trying to deal with the not-on-the-same-page problem, they think about how they should be introducing the tools to work teams so they can help other people during work team occasions to resolve the not-on-the-same-page problem. Therefore, they start to consider their role and responsibilities as a more knowledgeable other who is helping other people to use de Bono's tools correctly. This type of user is now referred to with the Getting On-the-Same-Page Theory as an enabled user. Over time, relative to each enabled user, sustained *taking-it-on* causes *tooled strategising*. With *tooled strategising* an enabled user proactively utilises the tools with their own thinking for the express purpose of creating and responding to opportunities to help people in business organisations utilise de Bono's tools.

By the time *tooled strategising* emerges the on-going changes with an enabled user's *cognitive languaging*, *cognitive disciplining*, *cognitive focusing* and *cognitive levelling* are at a level of *strong structuring*, therefore always consistent and always stable. Furthermore, unabated *tooled strategising* causes more *strong structuring*. This causes an enabled user's *moderate regulating* to transition to *strong regulating*. As they continue to utilise de Bono's tools they consciously and deliberately think about their thinking in order to continuously improve the way they are thinking with the tools. This reinforces their *strong bettering*, which causes more *maximum suppressing*, which causes more *minimum straining* and this causes an enabled user to engage in more *strong structuring*. Eventually, at a time relative to each individual enabled user, *no-wavering* emerges.

With *no wavering* an enabled user establishes a decisive position regarding the utilisation of de Bono's tools during work team occasions. They no longer vacillate about the value of the tools with their personal utilisation or the utilisation of the tools during work team occasions involving one or more other people. Therefore, they have committed to resolving the not-on-the-same-page problem, as the cause of their main concern. This proactive, self-initiated commitment to resolving the not-on-the-same-page-problem causes more *tooled strategising* and *strong structuring* transitions to *robust structuring*. With *robust structuring*, *structuring nuanced thinking*, the third phase of *structuring* commences.

The Continuation of Enabling Ad Infinitum

With *robust structuring* there is nuanced change in an enabled user's cognitive ability, with *primary utilisation* and *secondary utilisation* of de Bono's tools. With *primary utilisation* an enabled user utilises the tools to deal with work-based issues during work team occasions when de Bono's tools are utilised and also utilises the tools on their own, to specifically deal with private personal issues. With *secondary utilisation* an enabled user utilises the tools to deal with issues specifically related to them helping other people to utilise de Bono's tools, for the purpose of getting work teams on-the-same-page. Also, with *secondary utilisation*, another element of *structuring* emerges, this being *cognitive listening*. With *cognitive listening* an enabled user comprehends another person's thinking when the other person articulates their utilisation of de Bono's tools. There are two aspects of *cognitive listening* that emerge during Enabling, these being hearing *operative thinking* and *hearing general thinking*. With *hearing operative* thinking an enabled user of de Bono's tools comprehends the outcomes from another person's utilisation of the tools that indicate to them operacy has been implemented with the other person's thinking⁶. With *hearing general thinking* an enabled user is now also comprehending another person's general thinking lexicon that indicates to them the other person is using appropriate general thinking modes when they are utilising de Bono's tools.

When processing of the *getting-on-the-same-page* cognitive capability process results in unabated change in cognitive capabilities specific to an enabled user helping others to utilise de Bono's tools during work team occasions, an enabled user keeps trying to get work teams on-the-same-page. This effort is made for the benefit of themselves, and all work teams and business organisations they are involved with, ad infinitum. The processing of a user of de Bono's thinking tools main concern with the *getting-on-the-same-page* cognitive capability process is therefore perpetual, as illustrated by the following comment from a long-term enabled user: *The time I stop using the tools and trying to help others with them, that's when I'll no longer be here.*

⁶ Operacy, as explained in Chapter Six, Section 6.2.3, is a construct created by Edward de Bono which means the integration of thinking with practical action, in a similar way that 'numeracy' means the skill of actively working with numbers and 'literacy' means the skilled actions of reading and writing (de Bon 1990b, 1992d, 1997b, 2009a).

viii. Summary: contribution to theory and praxis

The Getting-On-The-Same-Page Theory presented in this Thesis, as a substantive classic GT explaining what happens when Edward de Bono's Thinking Tools are utilised by work teams in business organisations, makes a contribution to both theory and praxis⁷. This contribution is fully discussed in Chapter Seven (Implications and Limitations) and is therefore only summarised in this Introduction to Chapter One.

Contribution to Theory and Praxis: Work Teams

Given the paucity of rigorous research focusing on the correct utilisation of Edward de Bono's thinking tools by work teams, the Getting On-The-Same-Page Theory primarily provides a benchmark for quality studies focusing on the utilisation of de Bono's tools by work teams per se and by work teams within the context of work team occasions specifically, these being meetings, discussions and conversations between two or more people. The availability of this Theory as a benchmarking study therefore has the potential to significantly impact on theoretical perspectives of work team functioning. The most salient contribution, and therefore the most significant implication, the discovery of the Theory has on the development of theory associated with work team functioning, is in the area of work team cognition. The Getting-On-The-Same Page Theory also makes a contribution to work team theory in the areas of conflict and conflict resolution, because it provides a new perspective on the role of conflict during work team occasions, and further to this, the relationship between interpersonal conflict and work team productivity.

With the paucity of research on the utilisation of de Bono's tools within business organisations generally, and the utilisation of the tools by work teams particularly, the Getting On-The-Same-Page Theory, as the first academically rigorous theory elucidating what happens when de Bono's tools are utilised within these contexts, makes a practical contribution to the development of business organisations by giving business decision makers a better understanding and greater clarity regarding what to expect when work teams correctly utilise de Bono's thinking tools.

⁷ The definition of praxis adopted in Chapter Seven of this Thesis is: the process of using a theory in a practical way (Cambridge Dictionary 2020, accessed November 1, <https://dictionary.cambridge.org/dictionary/english/praxis>).

Contribution to Theory and Praxis: De Bono's Tools and Business Organisations

The Getting On-The-Same-Page Theory provides all decision makers (proprietors, directors, managers, team leaders, supervisors) who are familiar with de Bono's tools or are utilising them, along with any employees who are involved with utilising the tools, greater clarity and a better understanding of what they are experiencing with the utilisation of the tools, or what they can experience regarding changes in their cognitive capability. More particularly the Theory provides 'enabling tool' for people who are working in business organisations to interpret what is happening as they and other people correctly utilise Edward de Bono's thinking tools. There is also, particular practical relevance for people who are enabled users of de Bono's tools because they can use this enabling tool to monitor and reflect on their own praxis, in addition to using it to help individuals and work teams they are enabling to get-on-the-same-page, to better understand what they are experiencing.

iv. Summary: each chapter after Chapter One

Including this Introduction Chapter, this Thesis has seven chapters. To help the reader understand what can be expected with each chapter a summary diagram is provided at the beginning of each chapter. This diagram provides an overall objective for each section of the chapter and a specific aim for each sub-Section. With each chapter this summary diagram is followed by a more detailed Introduction to the contents of the chapter.

Summary Chapter Two: This Business Thesis and Classic Grounded Theory (GT)

Provides an explanation of the tenets and methods of classic GT. Explains differences between presenting a classic GT study and presenting a business thesis per se. Explains how these differences have been resolved with this Thesis as a business thesis presenting a classic GT study.

Summary Chapter Three: Edward de Bono's Thinking Tools

Provides a detailed description of de Bono's thinking tools and processes, particularly those utilised by people participating in the study presented in this Thesis.

Summary Chapter Four: Aligning Philosophical Perspective and Methodology

Identifies the most prominent philosophical perspectives researchers, within the ambit of the human and social sciences, are encouraged to choose from. Provides an overview of the Researcher's philosophical perspective as a *complexity reality weltanschauung*. Explains the compatibility between classic GT methodology and the Researcher's philosophical perspective.

Chapter Five: Conducting the classic GT Study Presented in This Thesis

Explains how the study presented in this Thesis was conducted using classic GT methodology. Re-visits and summarises the defining characteristics of classic GT. Explains and demonstrates how classic GT methodology was adhered to with the study presented in this Thesis. Explains how the study conformed to Research Ethics Committee requirements.

Summary Chapter Six: Getting On-The-Same-Page.

Explicates the Getting On-The-Same-Page Theory in detail.

Summary Chapter Seven: Contribution to Theory and Practice and Limitations

Discusses how the Getting On-The-Same-Page Theory contributes relevant and significant knowledge to both theory and practice in the substantive area of (1) work teams operating in business organisations and (2) utilisation of Edward de Bono's thinking tools in the context of business organisations, Explains the limitations associated with the classic GT study presented in this Thesis.

CHAPTER TWO SUMMARY

THIS THESIS AND CLASSIC GROUNDED THEORY (GT)	
INTRODUCTION	
▼	
2.1 CONDUCTING CLASSIC GT RESEARCH	
<p>Overall Objective</p> <p>Explain how classic GT research is conducted.</p>	<p>Section 2.1.1 Conducting a Classic GT Study</p> <p>Specific Aim Explain the prescribed methods for conducting classic GT research.</p>
	<p>Section 2.1.2 Evaluating Classic GT Research</p> <p>Specific Aim Explain the criteria for evaluating the quality of classic GT research.</p>
▼	
2.2 STRUCTURING THIS THESIS AS A CLASSIC GT STUDY	
<p>Overall Objective</p> <p>Explain how differences between the presentation of a traditional business thesis and a classic GT study, have been resolved with this Thesis.</p>	<p>Section 2.2.1 Role and Use of Extant Literature</p> <p>Specific Aim Explain why and how the presentation of extant literature with this Thesis is different to a traditional business thesis.</p>
	<p>Section 2.2.2 Presentation of Theory and a Literature Review</p> <p>Specific Aim Explain why and how the structuring of content in this Thesis is different to a traditional business thesis.</p>

CHAPTER TWO

THIS THESIS AND CLASSIC GROUNDED THEORY (GT)

Introduction

For over five decades grounded theory methodology has been used within the area of sociology by researchers in many disciplines. This includes business researchers, because much of the research in the area of business studies is concerned with issues relating to the ‘social world’ (Birks and Mills 2015; Fendt and Sachs 2008; Holton and Walsh 2017; Martin and Gynnild 2012; Stern and Poor 2011; Walsh et al. 2015). As explained in the Introduction to Chapter One grounded theory was originally developed by Barney Glaser and Anselm Strauss. In 1965 *Awareness of Dying* (Glaser and Strauss 1965) was published as a co-authored grounded theory monograph. Two years later *The Discovery of Grounded Theory: Strategies for Qualitative Research* (Glaser and Strauss 1967) was published and is now widely accepted as the seminal work on grounded theory (Birks and Mills 2015; Bryant 2017; Holton 2008; Martin and Gynnild 2012).

Subsequent to the development of grounded theory methodology by Glaser and Strauss, in 1990 Strauss and Juliet Corbin, published *Basics of Qualitative Research. Grounded Theory Procedures and Techniques* (Strauss and Corbin 1990). This caused an academic schism between the originators of grounded theory, with Glaser identifying significant differences between the original methodology and the work of Corbin and Strauss, which Glaser considers to be a highly inappropriate remodeling of grounded theory (Dey 1999; Glaser 1992; Glaser and Holton 2004; Martin and Gynnild 2012; Stern and Poor 2011).

Since 1995 what has become known as ‘constructivist Grounded Theory’ has also been developed and most prominently espoused by Kathy Charmaz, who studied under both Glaser and Strauss (Bryant 2017; Charmaz and Keller 2016; Mills, Bonner, and Francis 2006). Glaser (2002b) also considers this development to be an inappropriate remodeling of grounded theory, to become what he refers to as ‘Qualitative Data

Analysis (QDA)'. Further modifications and interpretations of grounded theory methodology since the mid-1990s, continues to be an anathema to Glaser and classic GT researchers. Byrant (2017) maintains, those researchers who state they are using grounded theory methodology now basically fall into one of three categories, those who follow Glaser's publications and prolific writing on grounded theory; those claiming to use grounded theory and drawing on the work of Corbin and Strauss, or derivatives of their work, and those claiming to be using grounded theory methodology while drawing on constructivist grounded theory, as promulgated by Charmaz.

Classic GT and This Business Thesis

As explained in Chapter One, the study presented in this Thesis was primarily informed by the work of Glaser and Strauss and conducted in accordance with the classic GT research processes prescribed by Barney Glaser. It was also informed by the writings of classic GT theorists working with and/or mentored by Glaser. Furthermore, the study was conducted as classic GT research within the area of business studies at a post-graduate business school. Section 2.1 of this Chapter explains the methodological processes the classic GT study conducted for presentation in this Thesis had to adhere to. This includes an explanation of the main tenets of classic GT and how a classic GT study commence. It also includes how a classic GT study proceeds to the write-up of theory, this being considered an intrinsic aspect of the methodology. Section 2.1 also explains how a classic GT study is evaluated.

While grounded theory is considered an appropriate methodology for business research there are prescribed processes associated with conducting a classic GT study, that are distinctly different from what is normally expected with PhD level research in business schools (Elliot and Higgins 2012; Holton and Walsh 2017). Therefore, Section 2.2 of this Chapter explains the key differences between conducting classic GT research and what is normally expected with a business study. This includes the role of extant literature and a literature review in particular. It also includes how a classic GT study is presented in comparison to the structure of a business Thesis. Furthermore, Section 2.2. explains how these issues are resolved with this Thesis, in order to meet the requirements of classic GT methodology while aligning with what is expected with a business Thesis.

2.1 Conducting Classic GT Research

Providing an overview of how classic GT research is conducted requires a delineation between a completed grounded theory as an end-result of a classic GT study and classic GT, as a type of post-graduate research that is conducted in accordance with specific principles and guidelines. Glaser and Holton (2004, para. 41) provide a useful overall description of a GT as the “end-product” of classic GT research:

The GT product is simple. It is not a factual description. It is a set of carefully grounded concepts organized around a core category and integrated into hypotheses. The generated theory explains the preponderance of behavior in a substantive area with the prime mover of this behavior surfacing as the main concern of the primary participants. I have said over and over that GT is not findings, not accurate facts and not description. It is just straightforward conceptualization integrated into theory—a set of plausible, grounded hypotheses. It is just that—no more—and it is readily modifiable as new data come from whatever source—literature, new data, collegial comments, etc.

Furthermore, conducting classic GT research, with the aim of presenting a classic GT end-product in a PhD thesis, requires strict adherence to the tenets of classic GT. Glaser (1992, 1994, 1998, 2001) has consistently elaborated on both the overarching tenets of classic GT and specific procedures. Glaser and Holton (2004, para. 41) point out these tenets and methods “are a complete package of GT procedures as an integrated methodological whole”. However, for easier understanding of how classic GT research is conducted, this Thesis distinguishes between the tenets of classic GT as a research method, and the prescribed iterative procedures for generating a classic GT as an end-product. Drawing on Birks and Mills (2015), Glaser (1978, 1992, 1998, 2001, 2002a, 2003, 2004, 2005b, 2012), Glaser and Strauss (1967), Heath (2006), Hickey (1997), Holton (2007, 2008, 2009), Holton and Walsh (2017), Stern and Poor (2011) Suddaby (2006), and Walsh et al. (2015), an overview of the main tenets of classic GT is provided in figure 2.2.

MAIN TENETS OF CLASSIC GROUNDED THEORY	
A GENERAL METHODOLOGY	Classic GT is a general methodology, not a philosophical perspective. Therefore, a classic GT study can be undertaken with different philosophical assumptions and perceived differently by different researchers with different end results: analytical, explanatory and/or predictive.
CONCEPTUALISING NOT VERIFYING	The main goal of classic GT is the emergence of a new conceptual theory from available data, in a systematic analytical manner. It involves the conceptualisation of patterns in data being collected, to generate new theory, grounded in the data. It does not involve researching and verifying facts.
IDENTIFYING THE MAIN CONCERN OF REAL PEOPLE IN A REAL SETTING	Classic GT is an investigation of an area of interest to the researcher, that aims to identify the main concern of real people in a real situation and theoretically explain how this main concern is resolved.
ALL IS DATA	Any kind of data, from any source, can be used with a classic GT study. This can be quantitative and/or qualitative data and can include private or public data; visuals, words or behaviour. Qualitative data and interviews are commonly used.
NO PRECONCEIVED PROBLEM OR HYPOTHESIS	With classic GT, theory emerges from the data not extant theory. This premise is violated if an extensive literature review is conducted before a classic GT study commences and prior to a classic GT study reaching a specific stage.
BEING OPEN TO EMERGENCE	The principle of emergence necessitates the researcher remains free of preconceived ideas based on personal or professional research interests. The researcher starts a classic GT study with as few predetermined notions as possible, so they can remain open to what is discovered empirically in the area under study.
BEING THEORETICALLY SENSITIVE	Classic GT is an advanced post-graduate Master and PhD level research methodology. It requires theoretical sensitivity on the part of the researcher and a high-level ability to conceptualise.

figure 2.1
Main tenets of classic Ground Theory.

2.1.1 *Conducting a Classic GT Study*

In 1967, Glaser and Strauss (1967) introduced the ‘constant comparative method’ as a third approach to the analysis of qualitative data, claiming this combined two approaches previously considered as separate and different to each other. These being firstly, the analytic procedure of converting qualitative data into a quantifiable form for hypothesis testing and secondly, the procedure of generating theoretical ideas. Subsequently, the constant comparative method has remained a fundamental procedure of GT methodology (Charmaz 2006; Dey 1999; Glaser 2002b; Holton 2008; Stern and Poor 2011; Strauss and Corbin 1990; Suddaby 2006). With the articulation of essential elements comprising the “complete package of GT procedures”, there are specifically prescribed process for conducting classic GT research (Glaser and Holton 2004, para. 9). Drawing on Glaser (1978, 1992, 1998, 2012, 2013), Glaser and Holton (2004) and Holton (2007, 2008) these processes are explained in figure 2.3.

2.1.2 *Evaluating Classic GT Research*

There are also prescribed criteria for determining the quality of a classic GT as an end-product, firstly enunciated by Glaser and Strauss (1967) and later confirmed by Glaser (1978), these being: fit, work, relevance and modifiability. Glaser (1992, 116) describes these criteria, as follows:

Fit is another word for validity. Does the concept adequately express the pattern in the data which it purports to conceptualize? Fit is continually sharpened by constant comparisons.

Workability means do the concepts and the way they are related into hypotheses sufficiently account for how the main concern of participants is resolved?

Relevance makes the research important, because it deals with the main concerns of participants involved. To study something that interests no one really or just a few academics or funders is probably to focus on non-relevance or even trivia for participants. *Relevance*, like all good concepts, evokes instant grab.

Modifiability is very significant. The theory is not being verified as in verification studies, and thus never right or wrong ... it just gets modified by new data to compare to ... New data never provides a disproof, just an analytic challenge.

CONDUCTING A CLASSIC GROUNDED THEORY (GT) STUDY

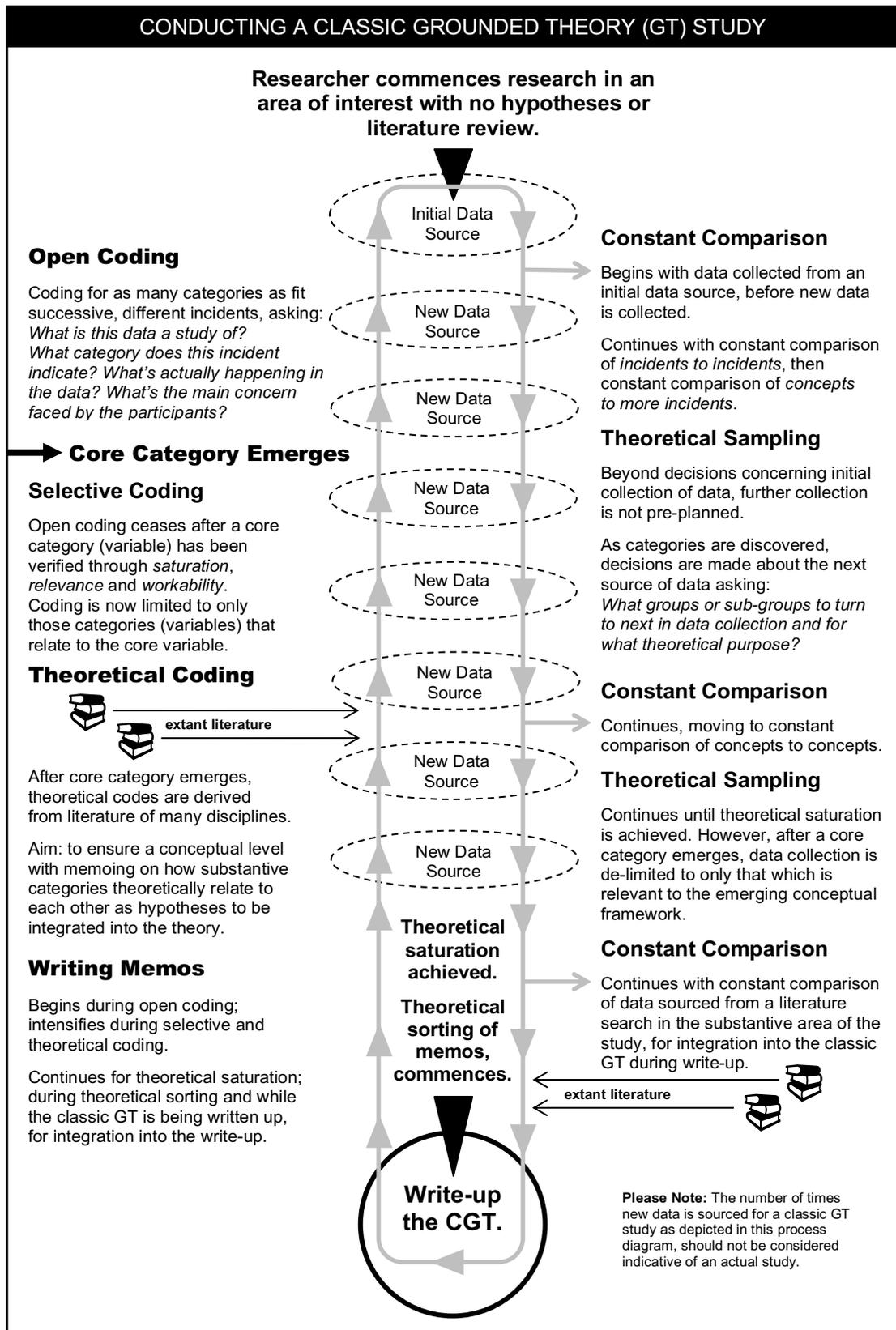


figure 2.2

Conducting a classic Grounded Theory study.

2.2 Structuring this Business Thesis as a Classic GT Study

Striking a balance between what is required for a quality classic GT study and what is required by a PhD candidate's academic discipline and/or thesis committee, is a common challenge for candidates choosing classic GT methodology, including business school candidates (Andrew 2006; Elliot and Higgins 2012; Glaser 2009; Jones 2009; Xie 2009). Holton and Walsh (2017, 12) point out:

Novice classic grounded theorists often find that they are breaking new territory in their institutions. They are striving to master a methodology new to them but also often unfamiliar to supervisors and colleagues or misinterpreted as a qualitative research approach situated within an interpretivist paradigm.

A social science orientation with business school research has long been accepted however and using GT within this context is now acknowledged as a legitimate research methodology (Bryman and Bell 2015; Eriksson and Kovalainen 2016; Fendt and Sachs 2008; Guthrie and Lowe 2012; Walsh et al. 2015). Notwithstanding the acceptance of grounded theory within the context of business school research, it is however primarily recommended as a qualitative research method and to avoid the difficulties associated with fully adopting grounded theory methods, it is often suggested that students only apply grounded theory coding procedures within the context of qualitative research. (Bryman and Bell 2015; Eriksson and Kovalainen 2016; Myers 2013; O'Connor, Netting, and Thomas 2008). Given the prescribed tenets and procedures for undertaking a classic GT study, the challenges associated with undertaking such a study within the context of a business school where this methodology is not well known, can therefore be significant. As Elliot and Higgins (2012, para. 37) point out:

Using classic grounded theory research method in an academic world can create tensions for students, who on the one hand want to use classic grounded theory as a whole methodological package whilst on the other hand, need to make adjustments to meet academic requirements.

2.2.1 *Role and Use of Extant Literature*

To ensure the credibility of the research and the contribution it is making, Bryman and Bell (2015) state, a literature review prior to conducting business and management research is essential. At the Researcher's university, this common directive is imbedded in the School of Business instructions for the preparation of a research proposal for entry into a Higher Degree by Research Course (Curtin University, n.d.). It is also a common directive of business schools, that not only is a literature review fundamental to commencing research, it is the first chapter of a business thesis that is presented after a general introduction. In contrast to this expectation, classic GT methodology requires a researcher *not* to review the literature associated with the substantive area they are exploring, prior to an emerging theory being grounded in a core variable and an integration of categories and their properties related to the core variable (Andrew 2006; Heath 2006; Hickey 1997; Holton 2008; Holton and Walsh 2017; McCallin 2006).

The process of constantly comparing data sourced from a literature review, only after the discovery of a core variable and during the final stages of classic GT research, is therefore integral to classic GT methodology (Glaser 1978, 2012a; Guthrie and Lowe 2012; Holton 2008; Holton and Walsh 2017; McCallin 2006). However, as Glaser and Strauss (1967) point out, no researcher approaches reality as *tabula rasa*, this being as a 'blank slate', all researchers will have an individual perspective; a focus, a general question or problem in mind. Furthermore, the researcher can have what Glaser and Strauss (1967, 252) refer to as "fruitful insights", that can come from the researcher's own theory or someone else's, not only during research, but also from the researcher's own personal experience prior to conducting research, including personal professional experience. Also, the problem with using extant literature while conducting a GT study does not mean that a literature review should never be conducted. The important issue is, at what stage in a GT study should a literature review be undertaken, for what purpose and how (Andrew 2006; Glaser 1998; Holton and Walsh 2017; Martin 2006, McCallin 2006; Nathaniel 2006; Stern and Poor 2011).

2.2.2 Presentation of Theory and a Literature Review

A PhD business thesis is generally expected to be structured with chapters that follow a traditional sequence of; Introduction, Literature Review, Research Methodology, Results, Discussion and Conclusion (Curtin Graduate School of Business 2004). However, with classic GT the write-up for presentation/publication of a new theory, as the outcome of a classic GT study, is a vital part of the methodology and should proscribe to classic GT conventions (Glaser 2012a). There is a logic of construction to be followed and a general ‘shape’ determining how a classic GT is introduced and written up for presentation. A classic GT study is therefore structured differently than the traditional chapters expected with a business thesis.

Presentation of a Classic GT

Furthermore, the write-up of a classic GT theory needs to be conceptually about the relationship between concepts, not descriptive statements about people (Glaser 1978). Also, the construction of a classic GT generally requires the overall theoretical framework and principal theoretical statements to be presented abstractly at the beginning of the presentation/publication (Glaser and Strauss 1967). This is followed by the first chapter as an explanation of the structure of the thesis chapters and/or an overview of the substantive theory, with remaining chapters ordered as firstly, a detailed chapter on classic GT methodology/methods, followed by a chapter/chapters explaining the theory in detail (Glaser 1978).

Adhering to Glaser and Strauss (1967), the overall theoretical framework of the Getting On-The-Same Page Theory is presented abstractly as part of the Introduction to Chapter One, and therefore at the beginning of this Thesis. How this early introduction of the theory is presented also adheres to the structuring of a grounded theory for publication, as advised by Glaser (1978). Therefore, the research problem explored by the study presented in this Thesis is explained not as a problem identified from extant literature, but as the problem constantly being resolved by the participants involved in the study. Also, in alignment with instructions provided by Glaser (1978), the introduction of the Getting On-The-Same-Page Theory in Chapter One provides an overview of the most relevant properties of the core variable (category) of the

theory, to inform the reader on what to expect from the theory when it is comprehensively explained later in this Thesis (Chapter Six).

Literature Review and Extant Literature

In regard to the presentation of significant extant literature, to enable the integration of concepts into an emerging theory relevant extant literature with referencing footnotes is imbedded in the write-up of a classic GT theory within the chapter/s explaining the theory in detail (Glaser 1978; Nathaniel 2006). After these chapters, extant literature can also be referred to as separate recommendations for theoretical or practical purposes at the end of a classic GT paper. This is achieved by applying the constant comparison analytical method to develop a comparative analysis between the core and sub-core categories of the GT; extant literature and a researcher's experience and/or knowledge (Glaser 1978).

With this Thesis the literature review requirement of a business thesis is fulfilled, by providing background information on the phenomena of interest to the study conducted for presentation in this Thesis, in Chapter One. This includes an overview of contemporary research focusing on work teams and an overview of what little research there is on the utilisation of de Bono's thinking tools. In addition to this overview of relevant extant literature in Chapter One, Chapter Six fulfills key classic GT expectations. These being, that the write-up of theoretical codes should be informed by extant literature which is sourced using the grounded theory constant comparative method of data analysis, to ensure relevant fit with substantive codes and for the purpose of carefully integrating the grounded theory into its place in extant literature (Glaser 1978; Holton 2009). Furthermore, as emphasised by Holton (2009), the analysis and integration of extant literature was only undertaken once the core category of the theory presented in Chapter Six, its properties and related categories had emerged during the study.

CHAPTER THREE SUMMARY

EDWARD DE BONO'S THINKING TOOLS	
INTRODUCTION	
▼	
3.1 DE BONO'S THINKING TOOLS	
<p>Overall Objective</p> <p>Provide an accurate description of Edward de Bono's thinking tools used by participants in the study presented in this Thesis.</p>	<p>Section 3.1.1 Lateral Thinking Tools and CoRT</p> <p>Specific Aim Explain the first Lateral Thinking tools invented by Edward de Bono and de Bono's Cognitive Research Trust (CoRT) program.</p>
	<p>Section 3.1.2 The Six Thinking Hats and Parallel Thinking</p> <p>Specific Aim Explain the Six Thinking Hats and Parallel Thinking.</p>
	<p>Section 3.1.3 More Lateral Thinking Tools</p> <p>Specific Aim Explain the development of Lateral Thinking concepts, tools and processes after de Bono's initial inventions.</p>
	<p>Section 3.1.4 Power of Perception Tools Derived from CoRT</p> <p>Specific Aim Explain the tools, derived from CoRT for use in business organisations and other thinking tools and processes invented by Edward de Bono up until 2009.</p>
	<p>Section 3.1.5 Other de Bono Thinking Tools and Processes</p> <p>Specific Aim Explain the other thinking tools, frameworks and processes developed by Edward de Bono that can be used by individuals and groups within the context of a business organisation.</p>

CHAPTER THREE

EDWARD DE BONO'S THINKING TOOLS

Introduction

As explained in the Introduction to Chapter One, all users of de Bonos's tools involved in the study presented in this Thesis utilised de Bono's Six Thinking Hats, as prescribed by *Edward de Bono's Six Thinking Hats®: Tools for Parallel Thinking®* (de Bono 2009f). Participants also utilised several, if not all tools, from the Power of Perception tool set, as prescribed by *Edward de Bono's The Power of Perception™: Ten Thinking Tools for Making Better Business Decisions* (de Bono 2009b). In addition, participants utilised several, if not all tools, from the Lateral Thinking tool set as, prescribed by *Edward de Bono's Lateral Thinking: Fast Track to Creativity* (de Bono 2009a) and this included all participants utilising de Bono's *Purpose Focus* Lateral Thinking tool and many participants utilising de Bono's *Area Focus* Lateral Thinking tool. Most study participants also utilised *TEC*, a thinking tool originating from the de Bono Cognitive Research Trust (CoRT) thinking program for schools (Devine media, n.d.).

The thinking tools utilised by study participants were not invented by de Bono at the same time. Given the on-going development of de Bono's work over several decades, this Chapter provides comprehensive background information on de Bono's thinking tools by explaining these tools in chronological order, in four sections covering the periods 1967-1972 (Lateral Thinking and CoRT tools); from 1986 (Six Thinking Hats and Parallel Thinking); 1992 -2009 (More Lateral Thinking tools); 1997 - 2009 (Additional Tools from CoRT and other tools); 1970s - 2009 (Additional de Bono's tools and processes).

3.1 De Bono's Thinking Tools in Detail

To ensure de Bono's tools are explained correctly and without misinterpretation the Researcher drew extensively on de Bono's books and authorised training manuals published over the period 1967 to 2009. An explanation of the context within which de Bono invented some of these tools and de Bono's rationale for inventing them is also provided to help the reader understand the purpose of the tools utilised by study participants, as intended by de Bono.

3.1.1 *Lateral Thinking and CoRT*

Over the period 1967 to 1972 de Bono invented the term 'lateral thinking', and the first tools of Lateral Thinking as new thinking tools for the deliberate creation of new ideas, to specifically counteract problems de Bono proposes are associated with the human brain functioning as a complex self-organising information system (de Bono 1967, 1972, 1992b). During this period these tools were only presented in a few publications, and as part of de Bono's Cognitive Research Trust (CoRT) Program for the direct teaching of thinking to children in schools.

Lateral Thinking

As explained in Chapter One, after referring to 'the other kind of thinking' in a 1960s interview with *London Live*, and inventing the term 'lateral thinking' as an appropriate label for this other kind of thinking, de Bono started explaining Lateral Thinking as "a process associated with a habit of mind that can be acquired and then adopted in a deliberate way" (de Bono 1967, 147). By 1969, with the publication of *The Mechanism of Mind*, de Bono had developed a rationale for Lateral Thinking based on his proposition that the human brain functions as a particular type of information processing system, with de Bono (1969, 236) maintaining there are at least three types of problems that human thinking needs to deal with that are directly related to this functioning:

1. Problems that require the processing of available information or the collection of more information.
2. The problem of no problem. Where the acceptance of an adequate state of affairs precludes consideration of change to a better state.
3. Problems that are solved by the re-structuring of information that has already been processed into a pattern.

De Bono (1969) maintains the first of these three problem types can be tackled with logical or mathematical thinking and the collection of more information, whilst the second and third require Lateral Thinking. De Bono (1969, 276) also proposes Lateral Thinking deliberately re-arranges information on the brain's 'memory surface' to "snap" information out of an established pattern, so a new pattern can be formed, rather than relying on insight, because:

Insight is so haphazard a mechanism that it cannot be expected to reduce the gap between the current arrangement of information (on the special memory surface) and the best possible arrangement with reliability.

Whilst acknowledging some people are more inclined to be 'lateral thinkers', de Bono (1967) insists this is not the same as using Lateral Thinking as deliberately or habitually as logical thinking. To make this possible de Bono invented and introduced 'PO', in *The Mechanism of Mind* (de Bono 1969), as a new word for the deliberate activation of Lateral Thinking. De Bono proposes, as a new cognitive function (thinking tool), PO makes it possible for the brain to be deliberately shocked out of an established pattern of self-organised information, on-demand, at any time. De Bono (278) maintains a function such as this is not possible with the use of logical thinking and analysis which relies entirely on the agency of the word 'NO'.

With the publication of *Po: Beyond Yes and No*, de Bono further explained that PO was invented for use during the perception stage of thinking, also referred to as the "first stage of thinking" (de Bono 1972, 43). This being the stage de Bono proposes is a natural consequence of the human brain being a complex self-organising information system. De Bono (1972,7) also states PO works in a completely different way from the YES/NO system which is the "second stage of thinking" and although this is immensely effective because it makes the best use of fixed ideas, the YES/NO system is of no use however, with the perception stage of thinking. Furthermore, according, to de Bono NO is the basic tool of the YES/NO system and the process of

using NO is logical thinking, whereas PO is the basic tool of the PO system and the process of using it is Lateral Thinking, de Bono's (1972, 72) rationale for this being:

The brain works to set up perceptual patterns or ways of looking at things. Our YES/NO system works to prove, establish, and preserve these patterns. The PO system works to break out of these patterns and move laterally to find newer and better ones.

In addition to PO, by 1969 other Lateral Thinking techniques first discussed in *The Use of Lateral Thinking* in a broad way in 1967 were further developed by de Bono in *The Mechanism of Mind* (de Bono 1969). These included the "random input" tool (also known as Random Word), which functions slightly differently than PO. Broad concepts which first appeared in *The Use of Lateral Thinking* in 1967 also included early forms of 'Focus' and 'Concept Triangle', which are specific Lateral Thinking tools presented in *Edward de Bono's Lateral Thinking: Fast Track to Creativity* training manual for adults to use in a business context (de Bono 1967, 1999a).

Cognitive Research Trust (CoRT) Program

While still at Cambridge University in the early 1970s de Bono established the Cognitive Research Trust and developed the Cognitive Research Trust Thinking Program known as CoRT (D'Angelo Fisher 2006; de Bono 2009c; Dingli 2009; Dudgeon 2001; Grotzer and Perkins 2004; Perkins 1995).

CoRT is Thinking Program for young people to be delivered in schools. It is divided into six sections with each section dealing with a broad aspect of thinking and containing 10 thinking lessons focusing on specific thinking processes or tools, with exercises for each lesson and Teachers Notes (Devine Media, n.d.; de Bono 1996). In *Teaching Thinking*, published in 1978, de Bono (1978, 138) explains the thinking tools included in CoRT are mainly to do with perception: "because most ordinary thinking takes place at the stage of perception rather than that of processing".

3.1.2 *Six Thinking Hats and Parallel Thinking*

When the *Six Thinking Hats* was first published in 1986, de Bono proposed theoretical considerations of active self-organising information systems were becoming more common at the time, resulting in an increased knowledge about brain behaviour. With this increased knowledge, de Bono (1986, 26) maintained, “it appears the thresholds of the brain’s nerve endings are greatly altered by bathing chemicals” and with this change in neurons stabilising into a different pattern, emotions must be considered as an essential part of human thinking ability. This perspective is now promulgated by contemporary neuroscientists and complexity scientists working with coordination dynamics as a new paradigm within cognitive neuroscience (Bressler and Kelso 2016; Greenfield 2004; Kelso 1999; Kelso 2003; Ratey 2003).

De Bono (1986) also maintains because of the intrinsic connection between thinking and feeling, the main restriction on thinking is ‘ego defense’ and this underpins many of the practical faults of thinking. Therefore, for thinking to be more than just reactive, and because of the possible basis in brain chemistry, de Bono developed the Six Thinking Hats (de Bono 1986). This methodology consists of six, imaginary thinking ‘hats’ each representing a different mode of thinking. To distinguish these different modes, each Hat is referred to by a specific colour and represented graphically as coloured ‘top hats’. With this metaphorical system, a thinker can visualise and imagine, the thinking modes they are using as real hats that can be “taken on and off at will”, therefore thinking can be deliberately changed to whatever thinking function is required (de Bono 1986, 31). An explanation of the Six Thinking Hats in the context of people in business organisations using this method during a work group occasion involving two or more people, is provided in figure 3.1.

SIX THINKING HATS



White Hat

"Think of white and paper and printout. The White Hat is concerned with information. What information do we have? What information is missing? What information do we need – and how are we going to get it? Questions can be asked in White Hat. If conflicting information is put forward, there is no argument. Both versions are put down in parallel and then discussed when that information needs to be used." (de Bono 2009f, 95).



Red Hat

"Think of red and fire and warmth. The Red Hat is to do with feelings, emotions, intuition. Under Red Hat all participants are invited to put forward their feelings. In a normal discussion you can only put forward these things if they are disguised as logic. Here there is no need to justify or explain them. They exist and can therefore be put forward. The Red Hat period is very brief and simply allows things to be put forward." (de Bono, 2009f, 95).



Yellow Hat

"Think of sunshine and optimism, dawn and a new day. This focuses on the positive. What are the benefits? The values? How could it be done?" (de Bono 2009f, 96).



Black Hat

"Think of the black of a judge's robes. The Black Hat is for critical thinking. What is wrong with the idea? What are its weaknesses? The Black Hat looks down one side, why something will not work, the risks and the dangers. All negative comments that might be made in a meeting are concentrated under the Black Hat. The Black Hat is very useful ... but it has its defined place." (de Bono 2009f, 95).



Green Hat

"Think of vegetation, growth, branches. This is directly concerned with creativity"...."This means looking for new ideas. It means considering alternatives, both the obvious ones and new ones. It means generating possibilities. It means modifying and changing a suggested idea, possibly through the deliberate use of lateral thinking tools." (de Bono 2009f, 96).



Blue Hat

"This is the organising or control hat. It is rather like the conductor of an orchestra. It is used right at the beginning of a discussion to decide the focus and what sequence of hats to use. During the meeting the chairperson or facilitator metaphorically wears the Blue Hat in a disciplinary way. People are reminded of the hat in use if they stray from that mode. Blue Hat is then used at the end for the outcome, summary and next steps. Blue Hat is like a bookend: one at the beginning and one at the end." (de Bono 2009f, 95).

figure 3.1
Six Thinking Hats

Parallel Thinking

The Six Thinking Hats methodology is a framework for 'Parallel Thinking'. This is a cognitive-based process invented by de Bono which is activated each time the Six Thinking Hats are utilised by two or more people and also underpins the utilisation of all de Bono's tools when they are utilised by two or more other people (de Bono 1994, 1997a, 1999a, 1999c, 1999d). Parallel Thinking is defined by de Bono (1994, 36) as:

... a broad term that covers the alternative thinking method that I am proposing as a replacement for the traditional Socratic method ... Parallel

thinking simply means laying down ideas alongside each other. There is no clash, no dispute, no initial true/false judgement. There is instead a genuine exploration of the subject from which conclusions and decisions may then be derived through a 'design' process.

De Bono maintains Parallel Thinking is different from traditional Western thinking, which is based on the thinking of the ancient Greeks, as espoused by Socrates, Plato and Aristotle, because it does not involve individuals exercising a true/false judgement (de Bono 1990b, 1994, 1999c, 1999f). With Parallel Thinking underpinning the utilisation of the Six Thinking Hats, when this methodology is utilised by two or more people, everyone involved uses the same Hat at the same time (de Bono 1992a; 2008). For example, if a group is using White Hat, Yellow Hat and Green Hat in a sequence, everyone uses White Hat at the same time to focus on providing information about the issue being considered; then everyone uses Yellow Hat at the same time to focus on benefits, values and what is working with the issue; then everyone uses Green Hat at the same time to generate new ideas, concepts, possibilities and alternatives in relation to the issue.

3.1.3 *More Lateral Thinking Tools*

An explanation of Lateral Thinking, and the tools of Lateral Thinking that were further developed by de Bono after 1967, as “serious creativity”, was provided in the 1992 publication *Serious Creativity: Using the Power of Lateral Thinking to Create New Ideas*, with de Bono (1992a, xi) stating:

I have deliberately included the word “serious” in the title of this book in order to move forward from the “crazy” notions of creativity. In this book I intend to put forward deliberate and systematic techniques that can be used in a formal manner by both individuals and groups. These techniques are directly and logically based on the behaviour of human perception as a self-organizing pattern-making system. There is no mystique at all about them. It was precisely to get away from the vague and mystical notion of creativity that I invented the term “lateral thinking” 25 years ago. Lateral thinking is specifically concerned with changing concepts and perceptions.

With the explanation of specific Lateral Thinking techniques in *Serious Creativity: Using the Power of Lateral Thinking to Create New Ideas* concepts presented in *The Use of Lateral Thinking* in 1967 were further refined. New tools and processes were

introduced in this publication. Most of these Lateral Thinking tools and processes were then incorporated into a *Fast Track to Creativity* process first presented in the 1999 edition of Edward de Bono's *Lateral Thinking: Fast Track to Creativity* training manual (de Bono 1999a).

As training manual for groups and individuals working within the context of business organisations Edward de Bono's *Lateral Thinking: Fast Track to Creativity* (de Bono 1999a) clustered de Bono's major Lateral Thinking tools published in *Serious Creativity: Using the Power of Lateral Thinking to Create New Ideas* (de Bono 1992) into various stages, starting with focusing on *where* or *why* new ideas are needed, through to implementing new ideas for business creativity. In 2009 the 'Concept Fan' technique, which first appeared in an American publication in 1985 and then in *de Bono's Master Thinker's Handbook: A Guide to Innovative Thinking* in England in 1990 as an 'Achievement Network' (de Bono 1990a), was included in the second stage of *Fast Track to Creativity* process in the 2009 edition of the *Edward de Bono's Lateral Thinking™: Fast Track to Creativity* training manual (de Bono 2009a). This edition also elaborated on the utilisation of de Bono's Purpose Focus tool as one of two tools (the other being Area Focus) and positioned positioned in both editions of the *Lateral Thinking™: Fast Track to Creativity* training manual as the de Bono's tools appropriate for starting any thinking to generate new ideas or to deal with an issue, task or problem (de Bono 1999a, 2009a).

An explanation of lateral thinking tools, techniques and processes invented, and refined by Edward de Bono from 1967 to 2009 for use by individuals or groups within a business context or for personal use, is provided in figure 3.2.

LATERAL THINKING TOOLS

Area Focus

Identifies where new ideas could be generated. There is no concern about generating ideas to solve a problem or deal with an issue, it only focuses on “generating new ideas in the area of ...” (de Bono 1992b, 94). Therefore, it focuses on creating ideas about anything at all, without limiting creative thinking to problem solving (de Bono 1999e; 2009a; Lyons and de Bono 2003).

Purpose Focus

“With *Purpose* focus there is a defined reason for our thinking. There is something we want to achieve. In purpose focus we decide ‘why’ we want new ideas – the purpose ... We may wish to complete a task, make an improvement or reach a goal.” (Lyons and de Bono 2003, 338).

Challenge

All current ideas, processes and ways of doing things are creatively challenged, it is not an attack or criticism. There are three steps: challenge necessity, validity and lack of alternatives. The checklist for challenging current thinking with these steps is: dominating ideas; boundaries; assumptions; essential factors; avoidance factors and polarisations (de Bono 1999a; Lyons and de Bono 2003).

Concept Triangle

Starts with a Focus (Area or Purpose), then an idea is generated in relation to the Focus, a concept is extracted from the idea, using this concept more ideas are generated. (Lyons and de Bono 2003, 336).

Random Word (Random Entry)

Starts with a Focus (Area or Purpose) then ideas are generated in relation to the Area or Purpose Focus, by obtaining a word at random as a starting point for ideas. (de Bono 2009a, 37).

PO and Movement

Starts with a Focus (Area or Purpose) then a PO (provocation statement) is set up, using one of several techniques, then one of several *Movement* techniques is used to move from PO to new ideas in relation to the Area or Purpose Focus. (de Bono 1999a; 2009a; Lyons and de Bono 2003).

Concept Fan

A defined purpose is placed at the right hand side, moving backwards from right to left, broad concepts are generated to achieve this purpose, then alternative direct concepts are generated to achieve these broad concepts, then practical ideas are generated to deliver the direct concepts; reading from right to left is a cascading fan of broad concepts; direct concepts; ideas (de Bono 1990a; 2009a).

Harvesting – Treatment - Evaluation

Harvesting sorts ideas and concepts that have been generated. *Treatment* modifies and improves ideas that have been generated. *Evaluation* techniques are used before generated ideas are operationalised (de Bono 1992b; Lyons and de Bono 2003).

Figure 3.2
Lateral Thinking Tools

3.1.4 Power of Perception Tools Derived from CoRT

To offset what he considers to be significant problems associated with human perception, in the mid-1970s de Bono designed a set of thinking tools for formally and deliberately “directing perceptual attention in a defined direction” and first presented them in the CoRT1 Thinking Program for children (de Bono 1996, 51). In 1997, thinking tools from CoRT1 were further developed and delivered as the *Edward de Bono’s DATT™ Direct Attention Thinking Tools* (de Bono 1997a) training program to help adults overcome the problems of perception and to enable better quality decision

making and problem solving within a business and workplace context (de Bono 1997a, 1999c). In 2009 *DATT*[™] was re-branded by de Bono Thinking Systems[®] (formally known as APTT) as *Edward de Bono's The Power of Perception*[™]: *Ten Thinking Tools for Making Better Business Decisions* (de Bono 2009b). A brief explanation of the tools derived from CoRT 1 and now available for use in a business context, is provided in figure 3.3.

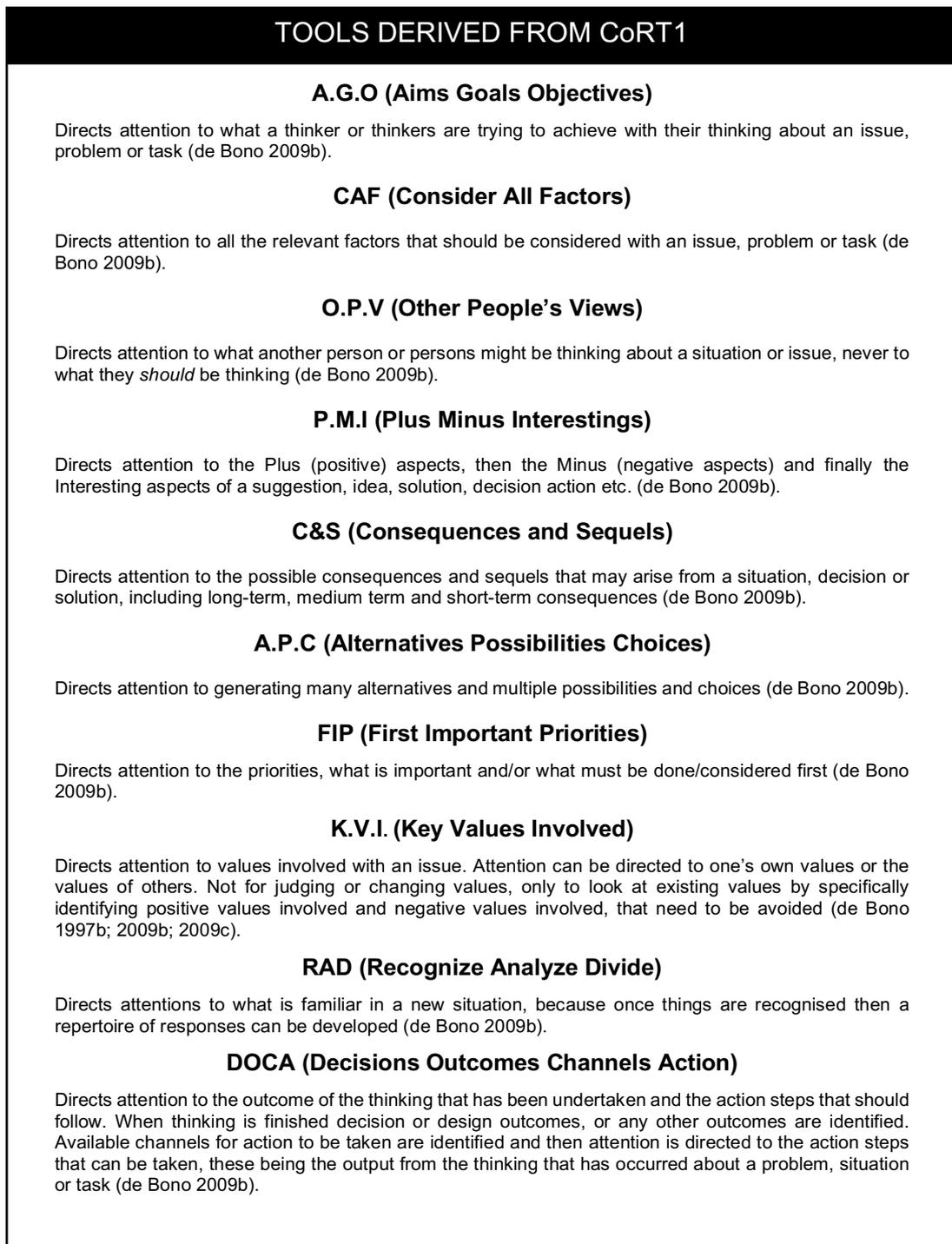


Figure 3.3
Tools derived from CoRT 1

3.1.5 Other de Bono Thinking Tools and Processes

De Bono (1991, 1992b, 2005, 2009d) has invented and developed a range of other thinking tools and frameworks that can be used by individuals and groups within the context of business organisations, or by individuals for personal use, including TEC-PISCO a tool also used by participants involved with the study presented in this Thesis. A description of these tools and processes is provided in figure 3.4

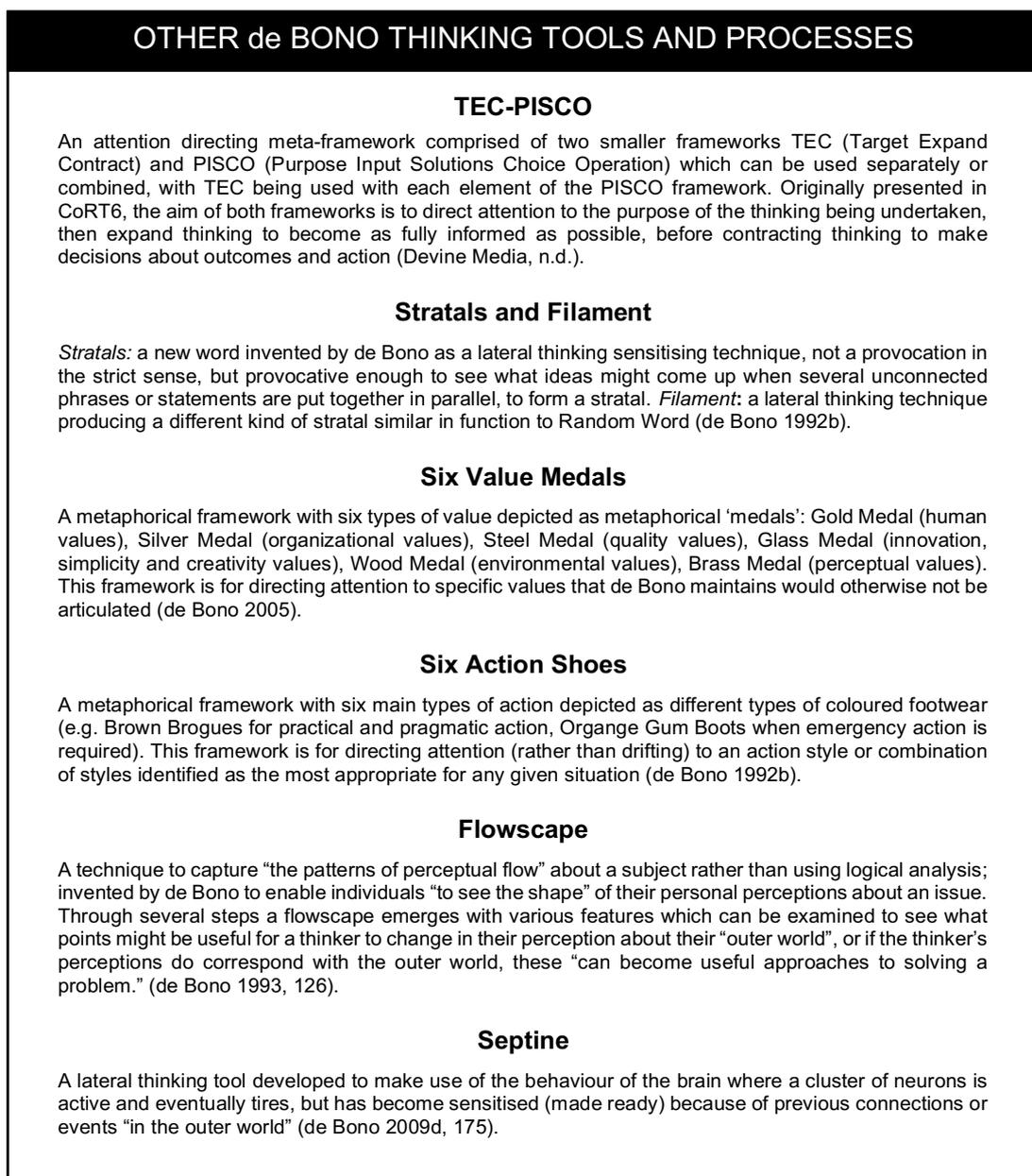


Figure 3.4
Other de Bono thinking tools and processes.

CHAPTER FOUR SUMMARY

ALIGNING PHILOSOPHICAL PERSPECTIVE AND METHODOLOGY	
INTRODUCTION	
▼	
4.1 RESEARCHER'S COMPLEXITY REALITY WELTANSCHAUUNG PERSPECTIVE	
Overall Objective Present the set of hypotheses that constituted the iteration of the Researcher's Complexity Reality Weltanschauung at the time this Thesis was completed.	
▼	
4.2 CLASSIC GT METHODOLOGY AND PHILOSOPHICAL PARADIGMS	
Overall Objective Explain classic GT methodology and the Researcher's philosophical approach.	Section 4.2.1 Choosing Classic GT for the Study Presented in This Thesis Specific Aim Explain classic GT as a general methodology for use with any philosophical perspective and the compatibility between classic GT methodology and the Researcher's complexity reality weltanschauung.

CHAPTER FOUR

ALIGNING PHILOSOPHICAL PERSPECTIVE AND METHODOLOGY

Introduction

Business studies are considered a broad field of research within the ambit of the human and social sciences (Alvesson and Sköldbberg 2018; Bryman and Bell 2015; Eriksson and Kovalainen 2016). Researchers who conduct their studies within this context are advised to align their methodology with their chosen philosophical perspective (Bryman 2004; Creswell 1998; Creswell 2009; Creswell and Poth 2018; Crotty 1998; Denzin and Lincoln 2011; Lincoln and Guba 1985; Ravitich and Riggan 2016; Saunders, Lewis, and Thornhill 2016). A researcher conducting a study within the context of the social sciences is also expected to clearly articulate their philosophical and methodological choices (Creswell 2009; Denzin and Lincoln 2011; Mertens 2007; Morgan 2007).

Making philosophical choices, and clearly articulating them, is however complicated, given the numerous philosophical schools of thought and conflicting views regarding theoretical perspectives and research strategies (Buchanan and Bryman 2018; Creswell and Poth 2018; Crotty 1998; Ormston et al. 2014; Willis 2007). Developing an ontological and an epistemological stance, within the context of conducting a business study, within the context of social science is therefore not an unequivocal task. Ontology being the branch of philosophy (metaphysics) that deals with the nature of being and the study of what exists (things), and epistemology being concerned with the study of knowledge and how we know things exist and therefore being concerned with the distinction between justified belief and opinion (Checkland 2002; Furlong and Marsh 2010; Perkins 1995; Richardson 2005).

Within the social sciences epistemology is considered to encompass, not only how a researcher knows what they know but also decisions about what kinds of knowledge are specifically possible regarding human social behaviour and why these justifications are adequate and legitimate (Creswell and Poth 2018; Crotty 1998;

Denzin and Lincoln 2011; Morgan 2007). Ormston et al. (2014) point out there are a plethora of different positions taken, as to the nature of the social world and what is possible to know about it, which has resulted in many schools of thought within the social sciences, each promulgating different ontological and epistemological stances. Creswell and Poth (2018, 8) maintain researchers studying social or human problems have “a baffling number of choices of approaches” when determining which research methodologies and methods are appropriate in relation to their philosophical choices.

Disparate Schools of Thought

Lincoln and Guba (1985, 15) propose sets of “basic beliefs” form a “system of ideas” that allow the nature of reality to be judged, as well as a method for making this judgement, and when beliefs and a method are combined this can be referred to as a ‘paradigm’. Lincoln and Guba (1985, 45) also note their definition of a paradigm is consistent with the introduction of this term by the philosopher scientist Thomas Kuhn in his seminal work, *The Structure of Scientific Revolutions* (Kuhn 1962). Further to their use of this term, Lincoln and Guba (1985, 37) propose inquiry in the physical and social sciences has developed through three eras, during which certain sets of belief have guided scientific enquiry in distinctly different ways, these being: the prepositivist, positivist and postpositivist “paradigm eras”.

Crotty (1998, 5) does not use paradigm as a term however, proposing social research can be conducted within several “theoretical perspectives”. These being positivism, postpositivism, interpretivism (which includes symbolic interactionism, phenomenology and hermeneutics), critical inquiry, feminism and postmodernism; with research methodologies relating to one of three epistemologies: objectivism, constructionism and subjectivism or variations of each of these.

Similarly, Creswell and Poth (2018, 17) use the term “interpretative frameworks” instead of paradigms, proposing social research can be conducted within the interpretive frameworks of postpositivism, social constructionism, transformative frameworks, postmodern perspectives, pragmatism, feminist theories, critical theory and critical race theory, queer theory and disabilities theory. Whilst acknowledging there are many competing philosophical paradigms and both the number and names of

paradigms vary between authors, Willis (2007, 22 and 38) maintains however that “a generally accepted list” only includes positivism, critical theory and interpretivist, as the most active and dominant guiding frameworks for contemporary research in the social sciences. Whereas, Alvesson and Sköldbberg (2018, 13), specifically focusing on social science constructs within the context of business and management, propose four “currents” of methodology and philosophy of social science: empirically orientated currents, hermeneutics, critical theory and postmodernism.

Non-Alignment with Traditional Schools of Thought

This Introduction has identified numerous philosophical perspectives a researcher working within the ambit of the social sciences is advised to consider when determining their ontological and epistemological approach and the research methodology that aligns with their chosen perspective. These have been variously referred to as ‘paradigms’, ‘theoretical perspectives’, ‘theoretical paradigms’, ‘theoretical frameworks’, ‘active paradigms’ and ‘philosophical currents’.

The Researcher’s philosophical perspective does not however align with any of these recommended theoretical paradigms, because it is rooted in the contemplation of new philosophical constructs that have only been emerging with the onset of complexity and philosophy around 2000. This philosophical perspective is presented in Section 4.1. of this Chapter as the Researcher’s *Complexity Reality Weltanschauung* Weltanschauung being defined as an encompassing view of the world addressing ‘big questions’ of meaning, hence it is a broad philosophical view of the world (Checkland 2002; Checkland and Scholes 1991; Dirks 2012; Rollinger and Ierna 2016).

Section 4.1 includes a set of hypotheses that constitute the Researcher’s complexity reality weltanschauung. In addition to this set of hypotheses being presented in this Chapter a detailed account of the work undertaken by the Researcher that resulted in these hypotheses, and which therefore clarifies how the Researcher’s complexity reality weltanschauung was developed, is provided in Appendix 3. Section 4.2 explains why classic GT was considered to be an appropriate research methodology for the study presented in this Thesis, given the Researcher’s *complexity reality weltanschauung*.

4.1 Researcher's Complexity Reality Weltanschauung

While undertaking a Masters' Degree in Leadership and management, a few years prior to becoming a PhD candidate, the Researcher developed an interest in various aspects of complexity science and the impact complexity science is having on 21st century business research and practice. This led to the exploration of the relationship between complexity and philosophy and resulted in the development of the Researcher's philosophical perspective. The Researcher has coined the term *complexity reality weltanschauung* as an apt descriptor for this perspective..

This broad philosophical view is still in the nascent stage of development however and only consists of broad conceptualisations. Therefore the Researcher feels obliged to humbly acknowledge, a greater understanding of long-held philosophical perspectives underpinning social science research, in addition to a greater understanding of the nature of complexity, is required before the Researcher can proffer *complexity reality* as a more robust philosophical perspective, rather than a general view of the world. The Researcher intends to continue with this enquiry after this Thesis is submitted.

However, the expectation that a Researcher will declare their philosophical perspective, as promulgated by Bryman (2004); Creswell (1998); Creswell (2009); Creswell and Poth (2018); Crotty (1998); Denzin and Lincoln (2011); Lincoln and Guba (1985); Ravitich and Riggan (2016); Mertens (2007); Morgan (2007) and Saunders, Lewis, and Thornhill (2016), is met by including a set of six hypotheses in this Chapter that constituted the iteration of the Researcher's *complexity reality weltanschauung*, current at the time this Thesis was completed.

Complexity Reality Hypothesis #1

Emergent phenomena (things) constituting the state of the world; the universe and all universes, exist per se and are inexorably constantly transforming.¹⁸

¹⁸ Essentially this is a controversial radical realist position and an ontological notion which is moderately aligned with speculative realism, this alignment is deemed to be moderate because some as philosophical constructs of *complexity reality*, do not currently appear to be considered by speculative realism.

Complexity Reality Hypothesis #2

All things, including humans, constituting the state of the world; the universe and all universes are in a relationship with all other things. (*Complexity Reality Ontology of Relationships*).

Complexity Reality Hypothesis #3

All things, including humans, constituting the state of the world; the universe and all universes are of equal value therefore humans are no more or no less valuable than all other things. (*Complexity Reality is Value Neutral*¹⁹)

Complexity Reality Hypothesis #4

Human cognitive abilities as an emergent outcome of complexity make it possible for humans to know about complexity like no other things can, whereas complexity makes it impossible for humans to know everything about complexity, concomitantly humans having more agency than all other things to effect the transforming of all things, while never having enough agency to plan, manage and control the effect of this agency on the transforming of all things. (*Complexity Reality Epistemological Paradox*).

Complexity Reality Hypothesis #5

There are ethical implications now emerging regarding human cognitive abilities, as an emergent outcome of complexity, that afford human agency, that impacts on the transforming of all things, while humans can never know everything about complexity. (*Complexity Reality Moral Philosophy*)

Complexity Reality Hypothesis #6

Because humans, (1) have the cognitive capability to know they can never know everything about complexity, (2) will never have sufficient agency to control

¹⁹ This is a radical axiological position, possibly in alignment with speculative realism. Axiology being concerned with the value of things and value claims associated with 'things' such as knowledge, objects, money and nature (Schroeder 2016; Tucker 2019).

complexity, (3) will always have sufficient agency to consistently impact on the transforming of all things, a shift is required in human action from trying to analyse and know the incomprehensible, to focusing on generating be the best possible action to take when unexpectedly perturbed.

Specific sub-Hypotheses Associated with Hypothesis #6

- i. a shift in human cognitive intent is dependent on the development of *hearing complexity*, this being a cognitive capability combined with an affective motivation to consciously perceive all things as intrinsically related emerging and emergent structures.
- ii. this shift in human cognitive intent requires a de-valuing of knowing everything about everything, to valuing a *praxeology of sensing*.
- iii. *a praxeology of sensing* consists of an iterative, cyclical process of *sensing emergent* → *complexity reality action* → *sensing emergents* → *complexity reality action* → ... ad infinitum.
- iv. *Complexity Reality Action* is firstly, ethically responsible action (what is 'ethical' and 'moral' has not yet been explored with this iteration of the Researcher's *complexity reality weltanschauung*), secondly, mindfully/innovatively conceived practical human action in response to perturbations being caused by previously unknown and therefore new emergent structures; patterns; processes; phenomenon.
- v. *Complexity Reality Action* as the best possible action to take at any point in time may require the use of thinking tools more appropriate for practical (moral/ethical) action, than those used for knowing as much as possible about everything.

4.2 Classic GT Methodology and Philosophical Paradigms

The two most prominent, and often most favoured, research modes within the ambit of the human and social sciences are quantitative and qualitative research (Buchanan and Bryman 2018; Crotty 1998; Ormston et al. 2014). Quantitative research tests hypotheses explaining or predicting human/social problems by collecting data that is numerical or quantifiable in some way, from a representative sample of individuals, that is analysed statistically, with the results used to make generalisations or predictions about the whole population in relation to the problem being studied (Bernard 2013; Lincoln, Lynham, and Guba 2011; Newman and Benz 1998; Yilmaz 2013). Qualitative research studies human/social issues in an exploratory way; in a natural setting with methods enabling the reporting of individual views, to make sense of specific problems from the perspective of those who are experiencing them; the perspective of the researcher is acknowledged and outputs include detailed descriptions of phenomena being studied (Creswell 1998; Creswell and Poth 2018; Denzin and Lincoln 2011; Ormston et al. 2014; Tesch 1990).

As explained in Chapter Two, Glaser and Strauss (1967, 101) developed the Constant Comparative Method as a fundamental procedure of GT methodology, referring to this method as the “Constant Comparative Method of Qualitative Analysis”. A major outcome from this early association of classic GT with qualitative data analysis and the consistent promulgation of this association by prominent theorists, including Strauss and Corbin (1990, 2015), has been the sustained positioning of grounded theory as a qualitative research methodology (Alvesson and Skölberg 2018; Creswell 2009; Creswell and Poth 2018; Ormston et al. 2014; Saunders, Lewis, and Thornhill 2016; Willis 2007). Glaser (2002b, 2005a) is emphatic however that classic GT is a general method that cuts across all research methods and using qualitative data does not in any way mean classic GT is a qualitative research methodology. Furthermore, Glaser and Holton (2004, 2) insist classic GT can be easily re-modelled if it is deemed to be a qualitative research methodology because Qualitative Data Analysis (QDA) focuses on accuracy, truth, objectivity of the data, and description.

Within qualitative research literature there are other QDA problems that are constantly being debated. These include “pacing of data collection, the volume of data, the procedure and rigor of data analysis, generalizability of the unit finding, the framing of the ensuing analysis and product”, all of which are concerns that are irrelevant for grounded theory (Glaser and Holton 2004, 2). Similarly, the conflation of classic GT with naturalist enquiry is considered by Glaser (2004) to be a significant methodological misinterpretation of the purpose, tenets and principles of classic GT. Naturalist enquiry being an approach to human social behavior which encompasses qualitative research and values the observation, description and interpretation of the experiences and actions of specific individuals and groups in a social context (Glaser 2004; Lincoln and Guba 1985; Lincoln, Lynham, and Guba 2011).

Glaser (2004, 2005a) is also explicit about classic GT being an inductive method, which as a general methodology, can be ‘possessed’ by any discipline or theoretical perspective and therefore does not belong to, or fit under, any particular philosophical paradigm, approach, perspective or framework. Associating classic GT with one specific philosophical paradigm, as has become common with symbolic interactionism, is anathema to classic GT theorists (Glaser 2004, 2005a; Glaser and Holton 2004). Symbolic interactionism (SI) being a theoretical approach to the relationship between human beings and society which focuses on interpreting meaning and symbols within social contexts. Glaser (2005a, 14) points out that the “take over” of classic GT by SI as a theoretical perspective, is a “loss of tremendous theoretical power brought to GT by discovering emergent TCs in any field, that fit and integrate the generated theory”.

As explained in Chapter Five, Theoretical Codes (TCs) are not substantive codes inducted from the data collected by a researcher, Theoretical Codes are derived from literature of many disciplines, regardless of normative theoretical perspectives that may be associated with various disciplines. Glaser (2005a) is critical of SI being touted as the philosophical perspective with which classic GT should be aligned and is adamant that to do so limits a researcher’s search for TCs outside the SI perspective. Glaser (2005a) asserts yet again, with grounded theory, “all is data”, regardless of what implicit theoretical perspective a researcher may prefer, grounded theory is simply a

general inductive method for conceptualising patterns in any data that is being analysed, including qualitative and/or quantitative data.

4.2.1 *Choosing Classic GT for the Study Presented in This Thesis*

When applying to undertake a PhD the Researcher was cognizant of the impact complexity science was having on philosophy, However, the Researcher had neither the interest nor the expertise to be involved with research methods associated with restricted complexity (computer modelling). Although the Researcher had not yet fully developed a *complexity reality weltanschauung* to the extent this philosophical perspective is presented in this Chapter. By the time the Researcher's PhD application required an alignment of an appropriate research methodology with the Researcher's philosophical perspective, the Researcher had committed to the exploration and further development of a *complexity reality* perspective. With this commitment the Researcher had difficulty adhering to traditional social science assumptions regarding the alignment of qualitative research methodologies with philosophical paradigms conceived prior to complexity philosophy emerging in the 21st century. Given this predicament, for several reasons, the Researcher decided classic GT would be the most appropriate research methodology to conduct the study presented in this Thesis.

Firstly, the flexibility afforded a classic GT researcher to conduct research with any philosophical perspective and the expectation that TCs would be derived from multiple perspectives, constructs or theories. This made it possible for the Researcher to undertake the study now presented in this Thesis, without having to commit to a philosophical perspective, as promulgated traditionally by social science academics, that did not fit with the Researcher's intention to further develop a *complexity reality* philosophical perspective.

Secondly, the methodological objective, unique to classic GT, to protect a process of 'emergence' and generate theory as an 'emergent' (Glaser 1978, 1992, 1994, 2001, 2005b) was perceived by the Researcher as being highly compatible with the complexity science construct of 'emergence'. Therefore, given the Researcher's commitment to developing a philosophical perspective aligned with complexity

philosophy, classic GT was considered an appropriate methodology for the study now presented in this Thesis.

Once the Researcher developed a good understanding of complexity thinking and further developed a *complexity reality weltanschauung*, after a core category emerged from constant comparison of data collected for the study presented in this Thesis, the Researcher considered the decision to use classic GT for the study was justified, in that the Researcher perceived the fundamental principles underpinning complexity thinking (dialogical, recursive and holographic), as proposed by Morin (1992a, 2002, 2007, 2008, 2014), to be compatible with the emergent and recursive nature of classic GT methodology.

Other Reasons for Selecting Classic GT as an Appropriate Methodology

In addition to the rationale provided in this Section of Chapter Four, that classic GT was the best-fit methodology for the study now presented in this Thesis, there were other reasons for selecting classic GT methodology, that were not related to the philosophical issues the Researcher had to deal with at the time a PhD Candidacy application was being prepared. As detailed in the Introduction to Chapter One and therefore have not been presented again in this Chapter.

CHAPTER FIVE OVERVIEW

CONDUCTING THE STUDY	
INTRODUCTION	
▼	
5.1 COMMENCING, PAUSING AND RECOMMENCING THE STUDY	
<p>Overall Objective</p> <p>Explain how the study presented in the Thesis commenced, was paused and then recommenced in order to fully align with classic GT research tenets and procedures.</p>	<p>Section 5.1.1 Pausing Fieldwork to Address Several Problems</p> <p>Specific Aim Explain the issues which were addressed when the Researcher paused the study and withdrew from fieldwork including clarification of the scope of the study, preconceiving, researcher bias and re-modelling classic GT.</p>
	<p>Section 5.1.2 Outcomes from Pausing Fieldwork</p> <p>Specific Aim Explain the outcomes from pausing the study.</p>
	<p>Section 5.1.3 Procedures Established to Conduct the Study More Efficiently</p> <p>Specific Aim Explain specific procedures established to improve how the study was conducted, prior to recommencing the study.</p>
	<p>Section 5.1.4 Recommencing Fieldwork</p> <p>Specific Aim Explain who the Researcher Re-engaged with when the Study Recommended.</p>
▼	
5.2 COMMENCING SUBSTANTIVE (OPEN) CODING	
<p>Overall Objective</p> <p>Explain how open coding, as the first phase of substantive coding was conducted and other classic GT procedures were maintained during this stage in the study.</p>	<p>Section 5.2.1 Data Collection with First and Second Groups Involved in the Study</p> <p>Specific Aim Describe data collection procedures during open coding including writing fieldnotes, conducting interviews and decisions regarding who to interview next.</p>
	<p>Section 5.2.2 Data Analysis</p> <p>Specific Aim Describe data analysis during open coding, including</p>
	<p>Section 5.2.3 Memoing</p> <p>Specific Aim Describe memoing procedures during open coding</p>

Continued Page 75

PART 5.3 IDENTIFYING MAIN CONCERN AND CORE CATEGORY	
<p>Overall Objective</p> <p>Explain how the main concern of study participants was identified with the collection of more data from individuals with long-term experience using de Bono's tools with work teams and the second work team involved in the study.</p>	<p>Section 5.3.1 Collecting More Data</p> <p>Specific Aim Describe the collection of more data to ascertain the main concern of study participants</p>
	<p>Section 5.3.2 Unexpected Outcome from Collecting More Data</p> <p>Specific Aim Describe an unexpected issue occurring with the collection more data and how the Researcher addressed this issue.</p>
▼	
PART 5.4 TRANSITIONING TO THEORETICAL SAMPLING	
<p>Overall Objective</p> <p>Explain the transition to the theoretical sampling stage of the study with the emergence of the core</p>	<p>Section 5.4.1 Theoretical Sampling Considerations and Decisions</p> <p>Specific Aim Explain decisions regarding which groups the Researcher would go to during the theoretical sampling stage of the study.</p>
	<p>Section 5.4.2 Where to Go Next for More Data</p> <p>Specific Aim Explain decisions regarding data collection to generate and verify sub-core categories and their properties.</p>
▼	
PART 5.6 DELIMITING DATA COLLECTION AND SELECTIVE CODING	
<p>Overall Objective</p> <p>Explain how the study proceeded with theoretical sampling and selective coding to saturate the core category and categories related to the core category.</p>	<p>Section 5.5.1 Delimiting List of Categories for Selective Coding</p> <p>Specific Aim Describe the reduction of the list of categories as the Researcher concentrated on selectively collecting data to saturate specific properties of sub-core categories and categories related to the core category.</p>
	<p>Section 5.5.2 Groups Involved after Delimiting Data Collection</p> <p>Specific Aim Explain maximisation of differences between the groups the Researcher engaged with to maximise diversity of data.</p>
	<p>Section 5.5.3 Collecting Data during Selective Coding</p> <p>Specific Aim Describe the type of data being collected during the selective coding stage of the study and the utilisation of another data sources other than collecting data through observation in the field and interviews.</p>
	<p>Section 5.5.4 Memos during Selective Coding</p> <p>Specific Aim Explain the mechanics of memoing and the types of memos at the advance stage of selective coding.</p>
	<p>Section 5.5.5 Re-interviewing Top Informants</p> <p>Specific Aim Explain the decision to re-interview top informants to fully saturate a particular sub-core category and the preparation of specific interview questions.</p>

Continued Page 76

PART 5.6 THEORETICAL CODING, SORTING MEMOS AND WRITING UP THE THEORY

<p>Overall Objective</p> <p>Explain key decisions made by the Researcher regarding theoretical coding and integrating all categories for the presentation of a multivariate classic GT and how this theory was written up for presentation in Chapter Six.</p>	<p>Section 5.6.1 Theoretical Coding</p> <p>Specific Aim Explain theoretical coding and a core category being modelled as a basic social process (BSP) in order to clearly explain the Researcher's theoretical coding decisions regarding the core category</p>
	<p>Section 5.6.2 Theoretical Modelling: Core Category of the Theory</p> <p>Specific Aim Explain why the Researcher decided the core category was not a BSP and the decision to theoretical model the core category drawing generative emergence theoretical codes.</p>
	<p>Section 5.6.3 Sorting Memos with this Study</p> <p>Specific Aim Explain how the Researcher adhered to the analytical rules guiding theoretical sorting of memos and the way the Researcher organised hundreds of memos during sorting.</p>
	<p>Section 5.6.4 Committing to Theoretical Codes</p> <p>Specific Aim Identify the theoretical codes used to fully integrate the Getting On-The-Same page classic GT.</p>
	<p>Section 5.6.5 Writing-Up the Theory of Getting-On-The-Same-Page</p> <p>Specific Aim Explain how the theory presented in Chapter Six of this Thesis was written up, including the use of extant theory in Chapter Six.</p>

CHAPTER FIVE

METHODOLOGY: CONDUCTING THE STUDY

Introduction

The study presented in this Thesis was conducted in accordance with the tenets and procedures of classic Grounded Theory (GT) methodology, as prescribed by Glaser (1978, 1992, 1998, 2001, 2002a, 2003, 2004, 2012a, 2012b), Glaser and Strauss (1967) and Holton (2007, 2008, 2009). Chapter Five demonstrates how these procedures were followed. This includes explaining, in Section 5.1, why the Researcher withdrew from fieldwork almost immediately the study started and how it recommenced, several months later, after re-modelling classic GT issues were resolved to conduct coherent classic GT research. Sections 5.2 to 5.6 explains how the re-commenced study conformed to classic GT processes, including open coding, selective coding, theoretical coding, obtaining theoretical saturation, sorting memos and writing-up the new theory. How the constant comparative method of data analysis, and concomitant memoing, was maintained as the study iterated through these processes, is also explained.

Several memos, or extracts from memos, written during the study, are provided in this Chapter to illustrate how the study was conducted in accordance with classic GT procedures. Originally hand-written, for easier reading, these have been copied into a typed format. As pointed out by Glaser (2013a, 3) “It is normative for no one to read another person’s memos.”; they are private, take any form, have “no perfection” or prescribed shape, and are not to be evaluated or critiqued. Therefore, memos in this Chapter should not be perceived as examples of ‘perfect’, correctly written memoing, they are only used to illustrate how the study was conducted as classic GT research.

Development of The Study

Prior to becoming a PhD candidate, the Researcher had personally utilised Edward de Bono’s thinking tools for over two decades; had been a de Bono Thinking Systems® Certified Instructor for at least ten years and had delivered de Bono endorsed training courses in a business context for almost two thousand people. While undertaking a

business and leadership Master Degree, the Researcher had also studied the leadership, development and management of work teams. With this work the Researcher began to realise it was impossible to find quality academic research focusing on the utilisation of de Bono's tools in business organisations, and in particular the correct utilisation of these tools by work teams over an extended period of time.

As explained in Chapter One, with classic GT it is acceptable for a researcher to have what Glaser and Strauss (1967, 252) refer to as "fruitful insights" from personal experience prior to conducting research, including personal professional experience. With significant personal and professional experience and a long-term interest in the utilisation of de Bono's tools, the Researcher started contemplating whether quality research on the utilisation of de Bono's tools would have a positive impact on the operation and management of work teams. With successful completion of the Master Degree, the Researcher decided to undertake PhD research with people who correctly utilised de Bono's thinking tools, to make a contribution to both theory and practice in the area of business studies. Further to this, as explained in Chapter One, the Researcher decided classic GT was the most suitable methodology for conducting research about phenomena that had rarely been rigorously investigated.

However, at this time the prevailing view, at the Researcher's graduate school of business, put classic GT into the 'too hard basket'. Therefore, the Researcher was advised to undertake what was described as 'grounded research'. The Researcher duly undertook a literature review and devised interview questions focusing on de Bono's tools and leadership. However, the Researcher stated in the PhD Candidacy Application the overall objective of the study was to explore what happens when work teams utilise thinking tools and processes designed by Edward de Bono and data collection and analysis would be conducted in accordance with procedures prescribed by Glaser (1978, 1992, 2002a) and Glaser and Holton (2004).

As indicated earlier in this Introduction to Chapter Five, the primary reason for conducting a study on the utilisation of de Bono's tools by work teams in business organisations, was a paucity of research focusing on the correct utilisation of de Bono's tools and more specifically, what appeared to be a complete lack of quality research focusing on the correct use of these tools by work teams in business

organisations. Therefore, for the Researcher's proposed PhD research to make a relevant contribution to theory and praxis, it had to involve people who had experienced sustained and correct use of de Bono's tools²⁰. As explained, in the Introduction to Chapter One, with this Thesis the correct use of a de Bono tool or tools is considered to be the utilisation of these tools as prescribed by training courses authored by Edward de Bono.

For various reasons, the study had to be conducted in Western Australia, where for over ten years the Researcher had been the only consistently accredited de Bono Thinking Systems® Certified Instructor. Therefore, to ensure research was conducted with people who used de Bono's tools correctly, people who would be observed, facilitated or interviewed during the study would, on the whole, be either previously trained by the Researcher or facilitated by someone the Researcher had also trained. Prior to submitting a PhD proposal, the Researcher was advised this meant researcher-bias was a significant issue. To deal with this unexpected issue the Researcher was advised to develop a Research Design for the study that combined grounded research with Participatory Action Research (PAR), on the basis PAR allows a researcher to be a participant enquirer (Chisholm 2002; Swantz 2008; Wicks, Reason, and Bradbury 2008). At the same time however, the Researcher continued to maintain, in the PhD Candidacy Application, the study would be conducted in accordance with classic GT procedures prescribed by Glaser (1978, 1992).

²⁰ The definition of praxis adopted in this Thesis is: the process of using a theory in a practical way (Cambridge Dictionary 2020, accessed November 1, <https://dictionary.cambridge.org/dictionary/english/praxis>).

5.1 Commencing, Pausing and Recommencing the Study

The study commenced with the Researcher engaging with a work team in a local government agency as a focus group.²¹ Conforming to the Human Research Ethics Committee conditions the Researcher was required to follow with the approved study, the discussion with team members was recorded. The Researcher commenced data analysis of the transcribed discussion with line by line open coding of the data in accordance with classic GT research tenets and procedures. As pointed out by Glaser (1978). The first rule that ensures open coding is done correctly with classic GT, is to ask a set of questions of the data, the most general of which is: What is the data a study of? Glaser (1978, 57) maintains this question reminds a researcher “that his original intents on what he thought he was going to study just might not be”. Focusing on this question while open coding the transcript, it became very apparent to the Researcher that the study was immediately skewing towards verifying a preconceived notion, that conflated the utilisation of de Bono’s tools by work teams with leadership. The Researcher’s concern regarding how the study had commenced, is evident with a memo written while attempting to code the first data collected for the study (figure 5.1).

MEMO: G1 - 6/5 - Y1

When I asked the group *How does the use of de Bono’s tools make it easier for you as a work team to deal with leadership issues?* I had just jumped straight into trying to link de Bono’s work and leadership. I’ve got it in my head that what happens when work teams use de Bono’s tools must have something to do with a different kind of leadership. This is NOT what I should be doing, I’m skewing everything a particular way ... forcing the whole study ... forcing the data. So ... asking the question *What is the data a study of?* has really revealed some fundamental flaws!

figure 5.1
Memo: concern about how the study started.

Further to the problems associated with the study inadvertently becoming verification-oriented, the Researcher also realised there was a fundamental flaw with the research

²¹ Focus groups (4-10 people) provide a classic GT researcher the opportunity to gather data regarding a small group’s mutual experience and are suitable for exploratory research focusing on everyday knowledge and experience (Fern 2001; Holton and Walsh 2017).

design. The Researcher had conflated grounded action, participatory action research and classic GT into a hybrid design that had re-modelled classic GT.

5.1.1 Pausing Fieldwork to Address Several Problems

The Researcher's intention had always been to conduct a classic GT study for the reasons detailed in Chapter One, therefore there was no hesitation about acknowledging fundamental problems had occurred with the study as soon as fieldwork had commenced. To gain a better understanding of how to conduct classic GT research, and to resolve these issues, the Researcher stopped collecting data and withdrew from fieldwork for several months, to develop a better understanding of how to conduct a classic GT study correctly. Subsequently the Researcher re-visited seminal publications written by the originators of GT and the work of prominent classic GT theorists; read a wide range of classic GT theses and dissertations, and investigated studies published in *The Grounded Theory Review*, the most prominent classic GT research journal. With this investigation several problems were clearly identified that needed to be resolved for the study to be conducted as prescribed by classic GT methodology tenets and procedures. These issues included the re-modelling classic GT problem emanating from perceived researcher-bias; the need to scope the study more appropriately, and the verification/pre-conceiving problem.

The re-Modelling Classic GT Problem Emanating from Perceived Researcher-Bias

The originators of classic GT insist a researcher can, and should, deliberately cultivate crucial insights during their research regarding their personal experiences with the phenomenon under study, pointing out these are generally suppressed or given the status of mere opinions (Glaser and Strauss 1967). Furthermore, Glaser (2002a) also points out unlike a qualitative data analysis (QDA) researcher, the grounded theorist does not need to adopt an attitude of personal distance when conducting their research because they are not aiming for accurate description, this means the classic GT researcher is automatically working on a conceptual level which transcends the QDA concern with descriptive data, and its inevitable focus on time, place and people.

Furthermore, Glaser (2002a, 2002b, 2004) consistently maintains if a researcher is exerting bias, and if any bias exists at any time in any interview, it is just another variable to be conceptualised and woven into the constant comparison analysis. Glaser (2012b) is also clear regarding a researcher's personal experience as data, maintaining there is no such thing. All data, be it an interview conducted by a researcher or a researcher's observation, is just more data to be compared using the constant comparison method. The degree to which a researcher's personal predilections biases the data, is therefore a variable to be considered; the classic GT constant comparative method reveals these biases and like all other variables, a bias will only be worked into the theory if it fits and is relevant. Therefore, the effect researcher posture, bias, and values, have on the data being collected is moot for classic GT, because this methodology is focusing on abstracting data to conceptual categories not on "troublesome accuracy", or trying to "uncover the truth" (Glaser 2002b; 2004).

The Need to Scope the Study More Appropriately

Classic GT criteria of theoretical relevance requires a researcher "to be clear on the basic *types* of groups he wishes to compare in order to control their effect on generality of both *scope* of population and *conceptual level* of his theory" (Glaser and Strauss, 1967, 52). Theoretical sampling controls data collection with classic GT, after decisions are taken regarding the initial collection of data, therefore further collection can't be pre-planned prior to the emerging theory (Glaser 1978, Glaser 2012b, Glaser and Strauss 1967, Holton and Walsh 2017). As explained in Chapter Two, theoretical sampling is the process of making decisions about what data to collect next, to continue the development of a theory after the emergence of a core category. While this gives researchers control over data collection without hindering it, Glaser and Strauss (1967, 52) caution researchers, that "applying theoretical control over choice of comparison groups is more difficult than simply collecting data from a pre-planned set of groups, since choice requires continuous thought, analysis and search". Glaser and Strauss (1967) also emphasise, choices such as comparing amongst groups of exactly the same substantive type, comparing different types of groups within different larger groups, or comparing larger groups within regions are all choices which increase and control the scope of a substantive theory.

Similarly, Holton and Walsh (2017) explain a researcher's area of interest can be strategically broad, through to narrow. Researchers working with qualitative data, particularly when mostly using interviews, can also employ the tactic of creating groups (Glaser and Strauss 1967) and Glaser (1978) emphasises the classic GT researcher has the freedom to collect data from any group, maintaining they can enter the field, go anywhere, talk to and listen to anyone. Classic GT analysts are also realistic however, as to how much freedom a classic GT researcher might be given to go anywhere, talk to and listen to anyone. Glaser and Strauss (1967) point out a researcher's sampling strategy will be restrained by structural conditions which can determine who can be observed or interviewed. Holton and Walsh (2017) make it clear a classic GT analyst, like all academic researchers, has ethic review committee requirements that must be met and sustained.

The Verification and Preconceiving Problem

Glaser (2012b, para. 6) emphasises a classic GT researcher cannot preconceive various aspects of a classic GT study, these being "1. the general problem, 2. the specific participants' concern, 3. what received concepts will explain current behaviour, 4. what theoretical code will integrate an emergent theory or 5. what theoretical perspective applies". Furthermore, with the aim of staying open to the emergent, Glaser (para. 6) maintains a classic GT researcher cannot preconceive what they will discover: "What is allowed is a general area of interest coupled with a humble lack of knowledge of what problems exist in that area". Further to this Glaser (para. 14) advises "open questions lead steadily to open coding for discovering the main concern and related coding" and recommends the use of "grand tour questions".

Holton and Walsh (2017, 77) also warn classic GT researchers that it is important with focus groups, as it is with all individual interviews, not to preconceive the direction of a group's conversation with a set of pre-planned questions; rather the researcher should start with a "grand tour question". A grand tour question, is an open-ended, broad question, where there is no pre-conception as to how it should be answered, which aims for an account of how things usually happen from the perspective of the interviewee (Holton and Walsh 2017; Glaser 2012b; Spradley 1979).

5.1.2 Outcomes from Pausing Fieldwork

The Researcher's re-investigation of classic GT research tenets, principles and methods after withdrawing from the field, resulted in abandoning any procedures associated with grounded research or methods associated with participator action research in order to re-commence the study strictly in accordance with the tenets and procedures of classic GT (refer to Chapter Two, Section 2.1.1). The Researcher also felt confident that adhering diligently to classic GT methodology would alleviate any concerns regarding researcher-bias and undue influence of research participants, particularly if the Researcher heeded Glaser (2002b, para. 11), that bias is just another "vital variable to weave into the constant comparative analysis".

Re-investigation of classic GT methodology also resulted re-organising how field notes would be written and how data would be collected during interviews (see Section 5.3.10 while still adhering to Human Research Ethics Committee requirements. The Researcher had always intended to start interviews with a grand tour question. Pausing the study and reflecting on how this intention had so easily been forgotten, resulted in the Researcher becoming more diligent regarding interview techniques which are appropriate for classic GT research. Therefore, when the study recommenced, The Researcher deliberately put aside any preconceptions about the research problem or outcomes and started all interviews with: *What do you experience when a work team you're involved with uses de Bono's tools?*

The Researcher also became much more aware of the importance of the set of questions Glaser (1978, 57) maintains are vital for a researcher to continually ask themselves when they start coding their data, these questions being: *What is this data a study of? What category does this incident indicate? What is actually happening in the data? What is the main concern being faced by the participants? and What accounts for the continual resolution of this concern?* When research re-commenced, constantly referring to these questions was an essential strategy for 'remaining open' during the early stages of the study. As Glaser (2012b, para. 18) points out, remaining open to what is really going on transforms research to where the data takes the researcher, rather than going in the direction of inappropriately preconceived notions,

a situation which applies to most researchers “except for the most intransigent ideological and, field driven thinkers with an immutable reality to push on others”.

Clarifying the scope of the study also resulted in the Researcher more effectively balancing the need to conform with Human Research Ethics Committee requirements while concomitantly adhering to classic GT tenets and procedures. After considering the factors influencing the scope of the study, the Researcher more clearly scoped the study to develop a substantive theory with research focusing on the concerns of a particular type of group in business organisations. This type of group being identified as a work team correctly using de Bono’s thinking tools for a sustained period of at least three hours a week, for at least 16 weeks. The correct use of de Bono’s tools being, using these tools as prescribed by de Bono authorised training programs for instructing adults within the context of business organisations, and as prescribed in publications authored by Edward de Bono.

Summary

Satisfied the scope of the study had been sufficiently clarified and the problems of pre-conceiving, researcher bias and re-modelling classic GT had been resolved appropriately while adhering to both ethics committee requirements and classic GT methods, the Researcher felt confident fieldwork could resume. The study could finally proceed with a focus purely on what happens when work teams in business organisations utilise de Bono’s thinking tools, from the perspective of people who have lived experience of correctly using these tools in work team situations over a sustained period of time. The study would no longer be inappropriately conflated with leadership constructs and the Researcher had a greater understanding of how to conduct the study in accordance with classic GT methods.

5.1.3 Procedures Established to Conduct the Study More Efficiently

Before re-entering the field, in order to conduct research more efficiently than when the study had first started, the Researcher also made several improvements to ‘operational’ procedures.

Separating Methodological and Theoretical Memos

Isabelle Walsh (as quoted by Walsh et al. 2015, 3), a well-established classic GT researcher, has commented that it took her years “to discover the full scope of GT as described by Glaser and Strauss in *Discovery* (1967) and apply it fully”. Ready to re-enter the field a great deal more confident about conducting bona fide classic GT research, the Researcher was fully aware, however, that the actual process of doing a classic GT study authentically was still going to involve a steep learning curve. To handle this reality in the most efficient and productive way, the Researcher evaluated how memo writing had been undertaken when first starting the study.

Prior to pausing fieldwork, memos mixed the Researcher’s thinking that was associated with trying to resolve issues, tasks or problems related to the correct application of classic GT methods, with thinking focusing on the results of using these methods, in other words, thoughts specifically relating to the development of theory. For more than a decade prior to commencing PhD research, the Researcher had consistently utilised de Bono’s thinking tools to ‘think through’ issues. Therefore, by the time the study started, it had become habitual to write down this thinking as it was occurring, in a ‘thinking journal’. Rather than continuing to conflate thinking about how to resolve method-based concerns with theoretical-based memos, the Researcher decided to revert to this long-term practice and established a ‘methods thinking’ journal for the duration of the study.

Maintaining an Audit Trail

Given the Researcher’s proposed study was considered to be qualitative research by the Researcher’s university Human Research Ethics Committee and initial PhD Supervisors, there was an expectation the study would provide evidence that theoretical concepts were empirically grounded. Holton and Walsh (2017) recommend one way of achieving this is to create an audit trail that links theoretical memos to the data from which they were generated, using a labelling system. Also noting that evidentiary detail is not relevant or required by classic GT, Holton and Walsh (2017) advise it may be expected by thesis supervisors, therefore developing a labelling system for all data and memos creates an audit trail for thesis defence if required. The

Researcher adhered to Supervisor and Human Ethics Research Committee requirements by developing a labelling system for maintaining an audit trail. This system was further improved, then fully instigated when recommencing fieldwork, as shown with figure 5.2.

AUDIT TRAIL LABELING SYSTEM		
Interview Label Example (1) G3-2-1:64	Interview Label Example (2) P6-2:13	
Third group (work team) involved in the study, second person interviewed, first interview, 64th incident of transcribed interview.	6 th individual interviewed who is not a member of a specific group (work team), second interview, 13th incident of transcribed interview.	
Fieldnote Label Example (1) G2-F8:19	Fieldnote Label Example (2) FG3-2-1:7 or FP6-2:5	
Second group (work team) involved in the study, 8th batch of fieldnotes, 19 th incident of fieldnotes.	Fieldnotes written during an interview with a member of a work team or an individual who is not a member of a work team, 7 th and 5 th incidents of fieldnotes.	
Memo Label Example (1) Resisting 25/7-Y1	Memo Label Example (2) FOCUS: Blue Hat 13/8-Y2	Memo Label Example (3) FOCUS: Levelling (Equalising) - 4
Name of code. Memo written on 25 th July in year 1 of study. Label used early in the study. These memos also referenced labels of data collected from individual interviews.	Memo written on 13th August in year 2 of study. Label used throughout study for memo summarising and/or expanding on several memos.	Mature memo about a concept (category). Label used later in the study after core category emerged. This example indicates: 4 th memo about a property (equalising) of a category (levelling).

figure 5.2
Audit trail labelling system.

5.1.4 Recommencing Fieldwork

Glaser (1978) advises, in the early stages of a classic GT study, that researchers begin by talking to the most knowledgeable people, generally a specific group of informants with first-hand experience of the phenomena being studied. Accordingly, the Researcher re-engaged with the work team involved in the study prior to having withdrawn from the field. The group consisted of five volunteers, each of whom had undertaken authorised training in Edward de Bono's Six Thinking Hats® Tools for Parallel Thinking® and Edward de Bono's DATT™ Direct Attention Thinking

Tools.²² While these participants were engaged in the study they utilised de Bono's tools during work team occasions for at least four hours per week over a period of four months. Twenty-two members of their Unit had also been trained in the correct use of these tools, as had the Executive Director of their Directorate, who had also previously been an accredited instructor in de Bono's Six Thinking Hats® Tools for Parallel Thinking® for four years. During the study the twenty-two members of the Directorate, together with the specific work team participating in the study, utilised de Bono's tools within a work team context for at least two hours a week, for a period of four months.

²² Now published as *Edward de Bono's Power of Perception™ Ten Tools for Making Better Business Decisions*.

5.2 Commencing Substantive (Open) Coding

From the Researcher's perspective substantive coding only commenced appropriately after re-engaging with the work team in the first organisation involved in the study. Subsequently the Researcher facilitated their meetings, referred to by the team as 'thinking sessions' over a four-month period for three hours a week and on one occasion for a full working day, resulting in them using de Bono's thinking tools for at least fifty-eight hours over this period, while focusing on several complicated on-going tasks. While engaging with this work team as the first group involved in the study, the Researcher was also invited to join all members of the team's Unit as they utilised de Bono's tools during six planning sessions over six weeks. The Researcher observed this Unit of fourteen people, utilising the tools for at least eighteen hours over this six-week period, as the second team involved in the study.

5.2.1 Data Collection with First and Second Groups Involved in The Study

Fieldnotes were handwritten during or after each session with the work team and the full Unit. Individual interviews were conducted with the four members of the work team, ranging from sixty to ninety minutes and tape recorded in accordance with Human Research Ethics Committee conditions. As indicated in Section 5.1.4, classic GT constraints, emanating from these conditions, were ameliorated as much as possible by using unobtrusive recording technology, this being a Livescribe 2GB Echo Smartpen. At the same time as recording the interview the Smartpen was used to write fieldnotes in an A5 size (notebook size) Livescribe Lined Journal. An A4 (letter size) Livescribe Journal was used for notes written during or soon after being in the field. In order to analyse an interview transcript before going back into the field a fast and accurate typist was engaged to transcribe interviews within a few days. This arrangement continued for the whole study.

Writing Fieldnotes

Not being sure as to how fieldnotes should be written, the Researcher was concerned notes taken in this early stage of the study were too descriptive rather than conceptual

and therefore not as to be expected with classic GT as pointed out by Holton 2008, para. 18). This concern is demonstrated with a typed copy of fieldnotes labelled G1-F16 (figure 5.3). Nevertheless, the Researcher adopted the habit of writing notes during, soon after or later the same day/night after each engagement with people involved in the study.

FIELDNOTE WRITTEN EARLY IN THE STUDY
<p>G1-F16 After today's session N – who's had training in de Bono's lateral thinking tools, suggested the group could use the challenge tool to challenge their assumptions about business models.</p> <p>So she led – facilitated – the group's thinking using the tool properly and explaining the steps of the tool as she went.</p> <p>R said "Are we all doing the steps properly" and everyone concentrated on what to do, kept going through the Challenge tool process and everyone followed, N wrote their thinking in dot points on the white board as they called out their thinking, all working in unison. The J said " I would argue ... " and went on to put her case for cutting one of the items off the Challenge list. R disagreed about it being cut. N said "I'll go with the flow if it's 3 to 1". J persisted is it a 'yes' or 'no'.</p> <p>Then N said well "maybe I should just shut up then". Then K said to everyone "I think we've gone of the plot with our thinking right now". R says "This is doing my head in right now" "What tool are we using" N says we need to be really clear about which Hat and I've been trying to go through the Challenge too with you, it's like a step by step process.</p> <p>R: "OK let's try and be better at using the tools. We have the proper way" Everyone agrees and they go through the Hats cards on the table, N draws out the Challenge Tool process on the White Board then they start again with the Challenge tool process.</p> <p>They stay on the process, no more arguing and each think their way through the steps of the tools and put forward their points – N writes their thinking points one after the other on the White Board they realise they're running out of time with the session and R says "we should do Blue Hat ... and a DOCA". They agree and R writes up their decisions as they take turns adding to the list of their outcomes from the session, N writes the list on the White Board.</p>

figure 5.3

Field notes written early in the study.

Conducting Interviews

Classic GT research is about discovering a main concern that is being processed, managed, or resolved, in the substantive area under investigation. For this to happen an informant needs to be able to talk naturally and exhaustively about what concerns or interests them, with the researcher asking questions to “get behind what emerges with underlying scope and parsimony of conceptualization” (Glaser 1978, 48). Each of the four interviews conducted with members of the first group involved in the study commenced with the grand tour question *Tell me about what you experience when a work team uses de Bono's tools*. None of the interviewees seemed confused by or unable to respond to this question, immediately and openly sharing their thoughts. The

Researcher concentrated on not interrupting, waiting until the interviewee had finished talking about their experience, whatever it was, and however long this took, before asking more questions. Most often this initial sharing was followed by asking interviewees open ended, prompting questions, as illustrated by an extract from the third interview, shown in figure 5.4.

EXAMPLES OF PROMPTING QUESTIONS FROM THIRD INTERVIEW
<p>G1-3</p> <p>You mentioned that relationships are different when people use the tools, from your perspective, how are relationships different?</p> <p><i>Um ... hmmm ... good question. Um ... I don't know if I can give you specifics but it's like being on the same page.</i></p> <p>Can you describe for me what being on the same page is for you?</p> <p><i>Yeah. Well maybe you might ... ah, I'm just trying to think ... and I'm sort of thinking that when we have discussions with the tools, when we have discussions we talk the same... but it's more than that it's like you are all thinking the same, well not the same thoughts, but with the same goal, not all against each other. But I'm not that good at it yet, like the others.</i></p> <p>I'm wondering what meann: you're not that good at it yet, like the others?</p> <p><i>Oh well, yeah. I know like what all the tools are called but some of the ways the tools, specific tools need to be used exactly, like exactly to make them work properly. Um ... like PO, I don't find that easy. I'm still getting to know how to use it, it's like I need to practice, well practice more with that one. I think that's why I'm good with the Hats 'cos I've used them more, I know what they're called and the rules, you know what to do when you use White Hat, think of all the information you need and Red Hat's just being your feelings, 'cos I've learned them more exactly.</i></p>

figure 5.4
Examples of prompting questions from fourth interview.

Who to Interview and When?

Glaser (1978) instructs researchers to stay within the confines of the substantive area and the field study during the early stage of initial coding. As also explained earlier in this Section, the Researcher followed Glaser's advice to begin a study with a group of informants who had first-hand experience of the phenomena being studied. Therefore, the first interview was conducted in the second week the Researcher re-engaged with the first group involved in the study. The interview was held with a member of the team who, in addition to undertaking authorised training in de Bono tool sets for

utilisation in a business context, had experience using these tools with various work teams within the Directorate and had also been mentored by the Executive Director, who was experienced in the utilisation of these tools. The second interview was held four weeks later with the member of the team whose own team in the Unit didn't use de Bono's tools and the third interview was conducted ten weeks later, with the member who had started using the tools with another small team she was coordinating. The last interview was held four months after the Researcher had started working with the team. This interview was held with the member of the team who had the least experience utilising de Bono's tools. Interviewing the most experienced person first and the least experienced person last, set a pattern which followed for most of the interviews with members of work teams involved in the study.

5.2.2 *Data Analysis*

With classic GT, the initial stage of data analysis is substantive coding of empirical data with open coding. This is the identification of incidents which are indicators of phenomena, or experiences, that are observed or articulated in the data (Holton and Walsh 2017). When incidents are identified and indicate one or more concepts, these are labelled with one or a few key words. To capture the action in these concepts these are preferably verbs, often ending in a gerund. During the early stage of substantive coding, these labels are referred to as codes and are conceptually descriptive rather than a literal description of an incident. With the cumulative comparison of codes as a study progresses, higher-level abstraction of an idea is referred to as a 'concept' or a 'category', this being the abstraction of individual concepts as a latent pattern and therefore a "theoretical model" (Holton and Walsh 2017, 212). The theoretical model (category) which appears to explain how the main concern of people in the substantive area under investigation is resolved, is referred to as the 'core category', because it accounts for much of the variation in the way the main concern is addressed (Holton and Walsh 2017). The *getting-on-the-same-page* as the core category of the theory presented in this Thesis was generated from the constant comparison of multiple incidents as indicators of codes, which through more constant comparison became elements, aspects or contexts of dimensions of properties of the core-category, as illustrated with a random sample of seven incidents coded during the open coding stage of the study, shown in figure 5.5.

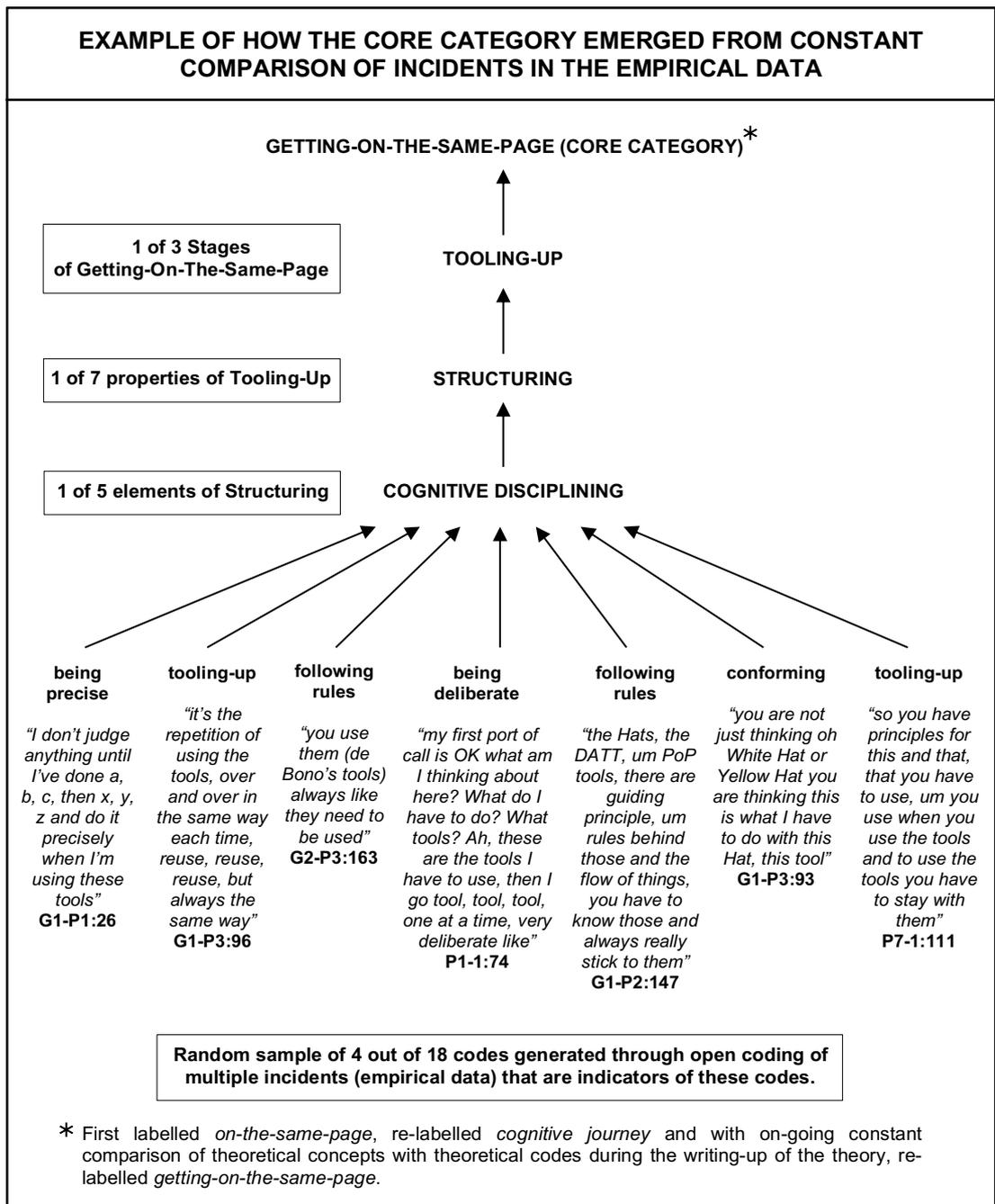


figure 5.5

Example of how core category emerged from constant comparison of incidents in the empirica data.

Regarding the number of incidents per conceptual code, as Holton (2007) points out, the number is not as significant as the classic GT requirement to theoretically sample to achieve theoretical saturation of a category, as more fully explained in Section 5.3.1.

Constant Comparison

In their seminal work *The Discovery of Grounded Theory*, Glaser and Strauss (1967, 106) emphasise the defining rule for the constant comparative method by explaining it as: “while coding an incident for a category, compare it with the previous incidents in the same and different groups coded in the same category”. Holton and Walsh (2017, 92) quote Glaser regarding conceptualisation being fundamental to classic GT and the necessity for abstraction from “time, place and people”, without which “there can be no multivariate, integrated theory based on conceptual, hypothetical relationships”. Holton and Walsh (2017, 93) also point out coding and memoing are the key “heuristic techniques” of constant comparison analysis, with this analysis being undertaken to “see if the data support and continue to support emerging concepts”. The researcher moves through the data “to see conceptual indicators repeated in incident after incident and constantly comparing these, concepts are developed and their properties and dimensions elaborated” (Holton and Walsh 2017, 93). The purpose of this method of data analysis being “theoretical elaboration, saturation and verification of concepts by developing their properties and generation of further concepts” (Glaser and Holton 2004, para. 53).

When the Researcher re-engaged with the first group involved with the study, open coding of data commenced immediately. Data was collected as fieldnotes written during or soon after engaging with the group each week; fieldnotes written during interviews and transcribed interviews. Fieldnotes were written with a wide margin on the left-hand side of each page of a Livescribe Lined Journal and interview transcripts typed with a wide left-hand margin. All coding was done personally and by hand without using computer software, as expected with classic GT (Glaser 2002a, 2005b; Glaser and Holton 2004). As also instructed by Glaser (1978), different incidences were coded into as many codes as possible. Fieldnotes, written during or after being in the field, and fieldnotes written during interviews, were fractured into meaningful sections and then analysed line by line; with constant comparison of incidents to incidents then, as more data was collected incidents to codes, with alternative possible codes written in the margins, as shown in figure 5.6 and figure 5.7. Interview transcripts were fractured and analysed line by line, with possible codes also written in the left-hand margins, as shown in figure 5.8.

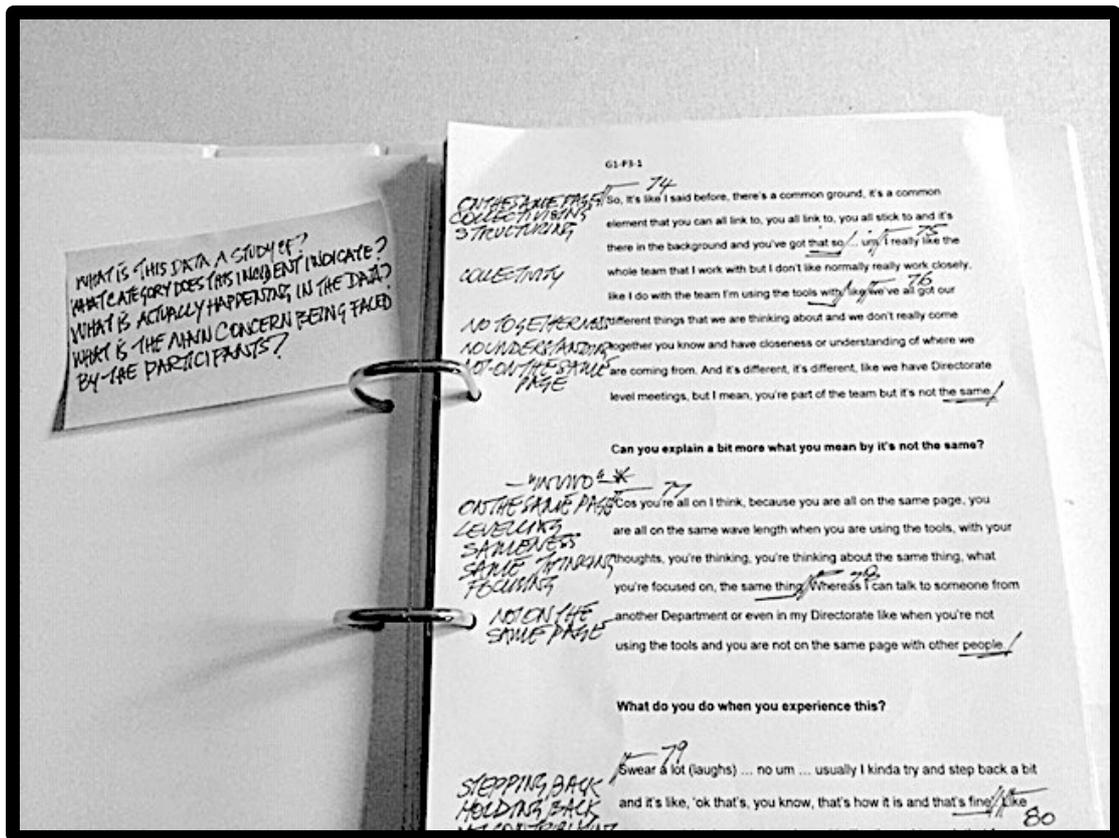


Figure 5.8

Example of interview transcript fractured line-by-line and open coded.

While analysing all the data being collected, the Researcher was focused on being very diligent about asking and reflecting on *What is this data a study of? What category does this incident indicate? What is actually happening in the data? What is the main concern being faced by the participants?* For easy reference these questions were written on a large yellow Post-it Note, placed next to fieldnotes and interview transcripts while the Researcher was open coding, as shown in figure 5.8.

5.2.3 Writing Memos

Glaser (2013a) explains memo writing is not optional. With classic GT memos are the written records of a researcher's thinking; the vitally important procedure that ensures the quality of the emerging theory. There are no rules, structure or format as to how memos should be written and memoing should be done at any time an idea occurs, whether the researcher is in or out of the field at the time (Glaser 2013a). Copious memos should be written to build a memo bank as the researcher develops conceptual knowledge of their data, with all memos eventually being fully sorted for writing up a

theory. Furthermore, a memo is not a description, it is a ‘theoretical note’ about the research data and the conceptual connections between categories. Early memos originate from the constant comparison of indicators to indicators, then memos connect indicators to concepts and later in a study writing memos will generate new memos; reading extant literature generates more memos and sorting memos for writing up a theory will generate even more memos (Glaser and Holton 2004).

Prior to withdrawing from the study, memo writing was never a chore, the Researcher enjoyed recording reflective thoughts whenever they came to mind. Therefore, when the study recommenced, writing copious memos quickly became a habit the Researcher maintained for the duration of the study. Early memos were written using a Smartpen and a Livescribe Lined Journal which the Researcher always kept at-hand whether in the field or not. Using Livescribe also made it possible to print an exact cope of memos from the Researcher’s computer, for sorting later in the study, while still retaining a copy of the originals, as shown in figure 5.9.

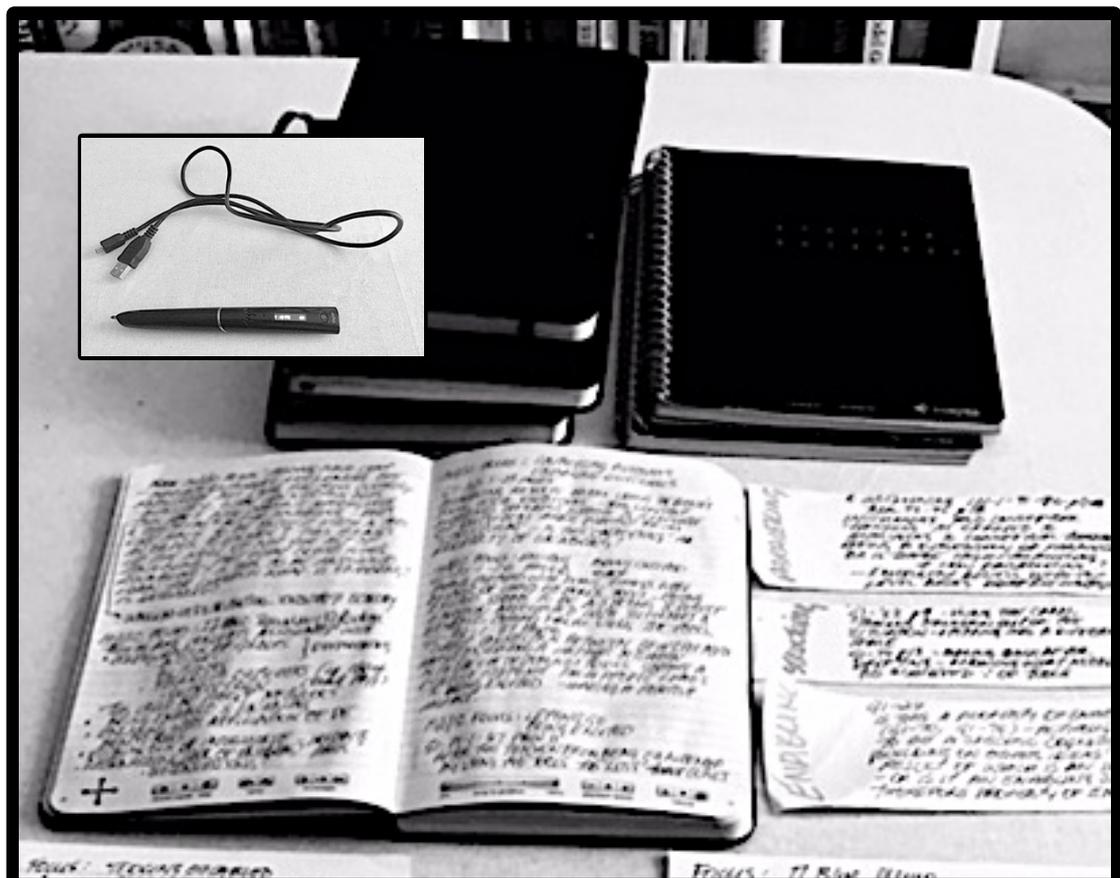


figure 5.9

Memos printed out from Livescribe Journals and cut up for sorting.

Insert: Livescribe Echo Smartpen used for recording interviews, writing fieldnotes and writing memos (not to scale)

Enjoying memo writing and finding it easy to stop coding to write a memo during the open coding process, the Researcher nevertheless worried about memos being too literally descriptive rather than conceptual. The Researcher’s attempts to write memos conceptually during the open coding stage of the study, is demonstrated by an example of several memos written during this stage (figure 5.10).

EXAMPLES OF MEMOS WRITTEN DURING OPEN CODING
<p>FOCUS: Purposing G1-P2: 17 Having a purpose with thinking with a base or frame for thinking about things, this framing means things – thinking – can be achieved, there is direction and better outcomes, getting more out of one’s thinking, being purposeful.</p>
<p>FOCUS: Levelling G1-P2: 53 no hierarchical relating, “<i>no this is what you need to do</i>”. G1-P1: 92, G1-P4: 32 flat structure with interactions, becoming a flat structured group, interactions levelled out and no-one person being in charge or needing to be in charge, “<i>a level playing field</i>”.</p>
<p>FOCUS: Togetherness G1-P2: 53, G1-P2: 158, G1-P2: 23. Doing the same thing at the same time, all thinking about the same thing, excited about the same thing, “<i>taking the personal out of it</i>” and “<i>becoming one</i>”.</p>
<p>FOCUS: Tooling G1-P1: 19, G1-P1: 26, G1-P4: 16. Very specific learning happens when first exposed to the tools, a tooling-up process, going from not knowing anything about the tools then having to talk the language, know what to do .. oh and its personal: “<i>I had to learn to name all the tools myself</i>”.</p>

Figure 5.10
Examples of memos written during open coding.

After reviewing memo examples provided by Holton (2007) however, the Researcher felt more comfortable about writing short memos at this stage in the study and more confident that the memos being written were conceptually orientated, rather than describing particular people at a particular time, and in a particular place.

5.2.4 Dealing with the Requirement to Record and Transcribe Interviews

Glaser (2013a) very clearly warns a researcher about problems associated with taping interviews. These problems include the analysis being slowed down while waiting for transcripts, an issue that is particularly problematic at the beginning of a study when it is easy to forget ideas. Other problems include the difficulty of memoing conceptually when tape recordings are yet to be typed and having too many interchangeable patterns of indicators with an interview transcript, therefore having

too much coverage which goes beyond concept saturation of interchangeable indicators. This can be a waste of time and effort because a conceptual analysis can be taken off track.

With the Human Research Ethics Committee requirement, that the Researcher tape and transcribed all interviews conducted during the study, the Researcher ameliorated problems associated with taping interviews as much as possible by using the Livescribe system rather than traditional recording technology. Fieldnotes were written during an interview with a Livescribe Smart Pen which also recorded what the interviewee was saying, at the exact time the Researcher was writing. Consequently, rather than waiting for an interview to be transcribed, there was always data available to start constant comparison analysis the same day/night as the interview. With the recording facility built into the Smart Pen, when fieldnotes were uploaded onto the computer, it was possible to listen to what an interviewee had been saying at the time the fieldnotes were written, as the original handwriting ‘unfolded’ on the screen while an interviewee was talking. Using this facility when and if required, while the Researcher was coding fieldnotes, helped a great deal regarding remembering ideas that had come to mind during the interview but not fully captured in a fieldnote. The Researcher also felt this helped reduce over coverage because incidents were noted in a memo while analysing the fieldnotes written during an interview. Therefore, when the transcribed interview was ready to be analysed, codes had already been generated for further constant comparison. The Researcher was therefore sensitive to over coverage with too many incidents and could code the interview quite quickly.

Analysis of fieldnotes, then coding, and analysing the interview was nevertheless very time consuming, although no more so than the Researcher had expected when committing to the classic GT procedures, while at the same time adhering to Human Research Ethics Committee requirements. To ameliorate problems emanating from these conditions, and to stay as close as possible to classic GT methods, the Researcher was also very diligent about analysing fieldnotes and interview transcripts before a new interview and before engaging with a new group. The only exception to this modus operandi being three interviews conducted between engaging with the second and third groups involved in the study, as detailed in Section 5.3.1.

5.3 Identifying Main Concern and Core Category

As explained in Section 5.2, after recommencing the study the Researcher engaged with two groups who used de Bono's thinking tools for a substantial amount of time, the first group being the work team the Researcher re-engaged with after commencing the study and the second group being the organisational Unit of which this work team were members. As also explained in the previous Section, data collection included fieldnotes written after sessions with the work team and the full Unit; fieldnotes written during interviews; interview transcripts from four interviews ranging from sixty to ninety minutes and a large number of memos generated during data analysis. Constant comparison analysis of this data during the open coding stage of the study resulted in the generation of 192 codes, most which were conceptual rather than descriptive.

The ability to think conceptually underpins Edward de Bono's methods generally and most specifically Lateral Thinking processes and tools (de Bono 1992b, 1999a, 2009a; Lyons and de Bono 2003). For over twenty years, before commencing the study, the Researcher had utilised two de Bono thinking tools that develop conceptual thinking skills²³. From the very outset of constant comparison analysis of the data collected at this early stage in the study, the Researcher therefore felt very comfortable generating conceptual codes. However, unlike most other conceptual terms created as an appropriate fit for incidents in the data, *on-the-same-page* was an in vivo concept. An 'in vivo' concept being a concept that comes from the words of the participants in the substantive area (Glaser 1978, 2002a). Classic GT, in comparison to qualitative data analysis which aims at getting 'the voice' of participants, only focuses however on in vivo concepts that work, fit and are relevant (Glaser 1978, 2002a).

By the time the Researcher had analysed the fourth interview with members of the first group involved in the study, and fieldnotes written while engaging with the second group, *on-the-same-page* as a conceptual code was being perceived by the Researcher as relevant to the main concern of people using de Bono's tools within a work team context. However, the Researcher was cautious about making assumptions regarding

²³ Concept Triangle Lateral Thinking tool and Concept Fan Lateral Thinking tool (de Bono 1990a, 1999a, 2009a).

the main concern so early in the study, at the same time pondering where to go next for data collection and which group would be the best comparison group while the study was still at the open coding stage of substantive coding. A memo written a few days after the completion of the constant comparison analysis of the transcript from the fourth interview, provides an insight into the Researcher's concern about identifying the main concern at this stage in the study, as shown in figure 5.11.

MEMO: BLUE HAT 20/12 - Y1

It seems when a work team uses the tools there's a different state of 'being a team': equalising, levelling, togetherness, directioning, achieving but I just keep coming back to on-the-same-page because all these codes seem to be related in some way to on-the-same-page ... can on-the-same-page be the core category? Even purposing, definitely levelling and probably connecting and bonding are all related to on-the-same-page. OR is on-the-same-page the main concern?? "*being on the same page, that's the ideal*" (G1-P3: 17). On-the-same-page seems to be the difference ('the difference that makes the difference' huh! ... Gregory Bateson), a change that happens when people use the tools as a team, I just don't get how on-the-same-page conceptually is a 'difference' - the result of something happening - and at the same time a problem that has to be resolved ... or more to the point the way a problem is being resolved?? ... Having a lot of trouble with this ... need more data!

figure 5.11

Memo: struggling to determine study participant's main concern.

NOTE: Underlined words are codes generated by the Researcher. Italics indicate a participant quote.

5.3.1 Collecting More Data

Glaser (1978, 45) explains that early in a study, a GT researcher will go to groups that they consider will "maximise the possibilities of obtaining data and leads for more data on their question". The Researcher, after engaging with and observing a small work team, then a larger group and interviewing four members of the work team over a period of four months, all of whom had only been using de Bono's thinking tools in a work team context for less than twelve months, considered it was appropriate to obtain more data from a much more experienced user of de Bono's tools.

To obtain a more experienced perspective on the utilisation of de Bono's tools within a work team context, the Researcher interviewed the former Director of the first two teams involved in the study and who had introduced these teams to de Bono's tools. In addition to being trained in the correct use of de Bono's tools and being an accredited trainer for several years this interviewee had also utilised these tools with

work teams in three organisations for at least 11 years. At the time of the interview this interviewee was an Executive Director in a local government authority, constantly utilising de Bono's tools with work teams in a Directorate of forty-four people. After fieldnotes from a ninety-minute interview with this interviewee, and the transcribed interview was coded, the Researcher started considering where to go next for new data.

Fortuitously, before deciding where to go next for more data, the Researcher had an opportunity to spend a few days in Melbourne, capital city of the Australian state of Victoria. The Researcher took this unexpected opportunity to interview three people living and working in Melbourne, who also had extensive experience correctly using de Bono's tools within a work team context. The first was held with a Master Trainer with de Bono Thinking Systems Inc[®] who had utilised de Bono's tools for over twenty years. This Master Trainer had worked in large organisations in five Australian states for extensive periods on complicated work team projects, training thousands of people both in Australia and other countries in the de Bono tool sets that are suitable for use by adults in business organisations. The second interview was conducted with a certified de Bono Thinking Systems Inc[®] instructor who had also worked in large Australian corporations on work team projects for at least fifteen years. The third interview was conducted with a certified de Bono Thinking Systems Inc[®] instructor who had been responsible for facilitating work teams for over ten years in one of Victoria's largest government departments.

Practical considerations and limited resources required these interviews to be conducted back to back, with each interview lasting ninety-minutes. Given these interviews had to be conducted back to back, the Researcher wrote fieldnotes during the interviews, batched these and analysed them sequentially as soon as possible. Similarly, when the interview transcripts were completed these were analysed sequentially as a batch of interviews. The Researcher was aware that batching data is not how a classic GT study should normally be conducted, however persevered and diligently hand coded the interview transcripts, constantly comparing codes and incidents and always pausing to memo. While coding this large collection of data, consistently reflecting on *What is this data a study of? What category does this incident indicate? What is actually happening in the data? What is the main concern being faced by the participants?* definitely helped the Researcher to stay focused on

trying to identify the main concern of people participating in the study, and also resulted in hundreds of memos.

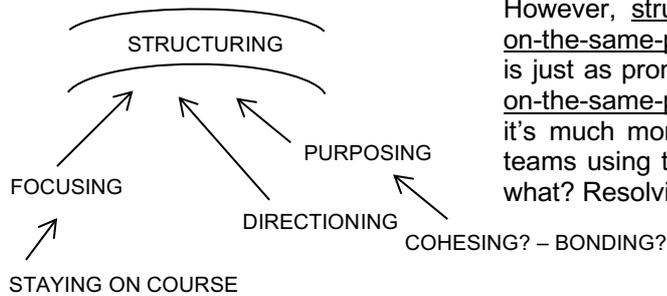
5.3.2 *Unexpected Outcome from Collecting More Data*

Coding the transcript from the fifth interview conducted for the study, the Researcher continued to perceive *on-the-same-page* as a possible core category, while at the same time still feeling confused. If *on-the-same-page* was turning out to be the core category, what was the main concern? Holton and Walsh (2017, 101) explain, the main concern and core category are “tightly coupled but distinct conceptualizations” with the former being the issue, prime motivator, interest or problem in the research area and the latter explaining how the issue is managed, processed or resolved. Also, the Researcher was perceiving relationships between prominent codes and writing memos about these relationships, using codes from the Six C’s theoretical coding family, referred to by Glaser (1978, 74) as the “bread and butter” theoretical code of sociology.

The Researcher had started drawing on these fundamental theoretical codes unconsciously while coding the fieldnotes and transcript from the fifth interview. After becoming aware of this unconscious default to the Six C’s, the Researcher started to worry that it was inappropriate to theoretically relate concepts while still open coding, and particularly because the main concern had not yet been confirmed. Further to this on-going struggle to identify the main concern, the Researcher wrote what subsequently became a very significant memo (figure 5.12). It was significant because it catalysed the realisation, that the Researcher hadn’t asked anyone involved in the study what it was like if a work team was **not** on-the-same page. After realising there was a need to know what constituted ‘not-on-the-same-page’, the Researcher started interviews six, seven and eight as with previous interviews, asking interviewees what they experienced when a work team they were involved with used de Bono’s tools, and then when appropriate also asked: *Tell me what you experience when a work team is not on-the-same-page.*

MEMO: BLUE HAT 24/1 - Y2

Structuring stops randomness of thought. There's staying on course, "*no-one jumps about*" (G1-P3:32) because of focusing and focusing leads to structuring. There's clarity – being clear; "*everyone knows what thinking has to happen*" (P1-1:54) - "*There's a reason for our thinking*" (G1-P4:101): purposing, also leads to structuring. And there's an "invisible glue" (P1-1:16) ... bonding ... cohesing and there's directioning – everyone's going in the same direction with their thinking. There's a relationship between all of these → structuring is a consequence of these - so is structuring the main concern?



However, structuring is definitely related to on-the-same-page ... and on-the-same-page is just as prominent - still can't work out how on-the-same-page can be the main concern – it's much more like a consequence of work teams using the tools – an outcome ... from what? Resolving WHAT concern?

Or am I seeing properties of on-the-same-page? WHAT I DON'T KNOW is ... what's it like when on-the-same-page is absent? What happens, what's it like when work teams DON'T use de Bono's tools? I've never asked that – have to now.

figure 5.12

Memo: catalysing the need to know what constituted NOT on-the-same-page.

NOTE: Underlined words are codes generated by the Researcher. Italics indicate a participant quote.

Asking interviewees to talk about what they experience when a work team is not on-the-same-page resulted in what Holton and Walsh (2017, 84) refer to as 'instilling a spill', this being "opening the space for interviewees to tell you what they want to talk about". The Researcher's inquiry elicited a plethora of incidents about behaviours that were only experienced during work team occasions when de Bono's tools aren't utilised, providing the Researcher with an unexpected insight into what most concerned study participants. With constant comparison analysis these incidents were conceptually coded as *not-on-the-same-page*. It also became apparent it was what participants experienced when work teams didn't utilise de Bono's tools that was their main concern. By the time the analysis of the eighth interview was completed the Researcher was feeling confident the main concern of people who utilise de Bono's thinking tools in a work team context, is the extreme frustration they feel when they experience *not-on-the-same-page* because de Bono's tools are not being utilised. Types of *not-on-the-same-page* behaviour had also emerged and were coded as *polarising*, *powering*, *holding-back* and *bouncing-around*. Furthermore, *on-the-same-page* was now being perceived as the core category, rather than the main concern.

To be confident about *on-the-same-page* being the core category, the Researcher referred to Glaser (1978), who provides a list of criteria which a classic GT Analyst can use to identify the core category. In addition to other criteria, fundamentally the core category must be central and relate to many other categories. The core category's properties, more than any other category; must occur frequently in the data; with connections to other categories occurring easily, without leading dead ends. The core category must be completely variable; a dimension of the problem, and therefore explain itself and its own variation. Furthermore, the core category can be any kind of theoretical code, such as a process, condition or consequence. At the completion of the eighth interview undertaken for the study, *on-the-same-page* appeared to relate to several codes and to fit the criteria that a core category is a dimension of the problem. This was particularly so when the Researcher considered the example Glaser (1978, 96) provides for the criteria, that a core category is also a dimension of the problem and explains itself and its own variation:

While “becoming” a nurse explains the problematic psyching out of teachers, it also in part explains why a nurse becomes a nurse. They engage in becoming to become, while becoming explains how they handle teachers.

This example made it easier to contemplate the possibility that *on-the-same-page* was somehow associated with the main concern of *not being on-the-same-page*. However, the Researcher was still confused about how *on-the-same-page* as an outcome, could also be the core category and was still concerned about the small amount of data that had been collected; worrying that “deductive, logical elaboration”, as warned by Glaser (1978, 960), was being indulged in. The Researcher did not, at this stage, feel completely confident about making a decisive decision about *on-the-same-page* being the core category, particularly as only two groups had been involved in the study and only eight interviews had been conducted. The Researcher decided to collect more data from a group who had never utilised de Bono's tools, and negotiated to work with a team in a not-for-profit organisation with 600 employees that had been operating in the aged care sector for over fifty years. Seven people volunteered to be involved in the study, forming a cross-functional work team. Escalating competition from other aged care service providers was impacting the organisation, therefore the organisation's CEO asked the team to develop new concepts for aged care housing.

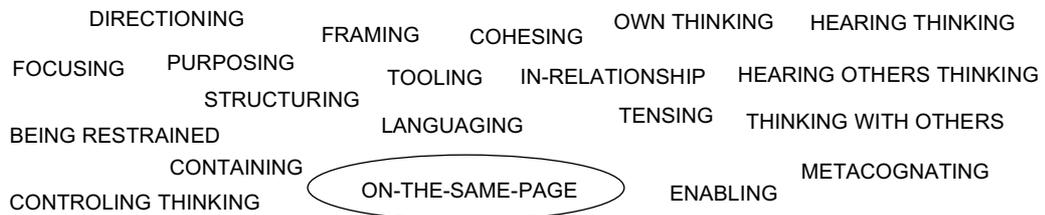
The Researcher facilitated the team's utilisation of de Bono's tools for at least three hours a week, then fortnightly over a period of four months; no one in the team had ever used de Bono's tools before and only two team members had heard of Edward de Bono. The first interview with a member of this group was conducted three weeks after the work team came together and the last interview was conducted at the end of the four-month period. Therefore, by this stage the group had utilised de Bono's tools correctly for at least thirty-seven hours, this included the tool set from *Edward de Bono's Six Thinking Hats®: Tools for Parallel Thinking®* (de Bono 2009f) tool set, most the tool set from *Edward de Bono's The Power of Perception™: Ten Thinking Tools for Making Better Business Decisions* (de Bono 2009b) tool set and several tools from *Edward de Bono's Lateral Thinking: Fast Track to Creativity* (de Bono 2009a).

As with previous groups, fieldnotes were written as soon as possible after each work team session and during each interview, along with interview transcripts this data was analysed line by line while applying constant comparison analysis and writing copious memos. A memo written while analysing the fourth interview, this being the twelfth interview of the study and conducted two months after engaging with this second group involved with the study, demonstrates the Researcher's thinking regarding the emergence of a core category, as shown in figure 5.13.

After writing this memo the Researcher decided to print out all memos that had been written about specific codes up to this point in the study. Subsequently memos were printed out with a blank space on the left-hand side; cut up and the name of the code or codes the memo referred to written in large letters in the blank space. The memos were then attached with Blue-Tac onto two walls from the floor to head height in the Researcher's study. After reading and reflecting on this mass of memos and writing even more, one night the Researcher quickly wrote four codes that had emerged during open coding on yellow Post-it Notes, these being *tooling*, *levelling*, *enabling* and *tensing* and positioned them in a particular configuration on the study desk. With sudden and unexpected clarity, the Researcher had laid out these codes as a three-phased process of change, with a disruption to the process between the first and second stages, as shown in figure 5.14. The Researcher now perceived how the *not-on-the-same-page* problem was resolved with a process of change in cognitive ability.

MEMO: ON-THE SAME-PAGE - 18

So many codes appear to relate to on-the-same-page but this still seems like the outcome of using the tools – rather than the way polarising, powering etc. is resolved



There's a dynamic, a change occurs – going from not on-the-same-page to on-the-same-page and it happens over time ... going from the problem to solving the problem. All starting with tooling – and all about thinking, personal thinking and then thinking with others – there's a personal/collective transition that gets everyone off or away from not-on-the-same-page → to on-the-same-page. This seems to be the core category: on-the-same-page?? Not sure why I feel uneasy about this tho'. Maybe it's a naming problem – maybe there's a better name for this personal transition ... this change from not knowing anything about the tools then tooling understanding/knowing the tools - and then thinking with others, hmmm thinking with others is actually maybe a dimension of levelling - should fold it into levelling. Not **just** thinking with others tho' but thinking in a way that eliminates powering, and polarising. This core category - on-the-same-page - or whatever it should be called - is a definite movement from one state or kind of work team interpersonal communication/cognition/experience towards another kind of experience altogether that's how the problem of not on-the-same-page is resolved – getting off not on-the-same-page to → on-the-same-page.

figure 5.13

Memo: emergence of a core category after twelfth interview.



Figure 5.14

Post-it Notes conceptualising core category as a process with three stages.

5.4 Transitioning to Theoretical Sampling

At the same time as feeling surprised and relieved that the arrangement of Post-it Notes was possibly a breakthrough regarding the core category, the Researcher remained very nervous, in fact rather ‘paranoid’ about not doing the study properly. Although it now seemed obvious the core category was a process with at least three temporal-based stages of change, the researcher still worried about jumping too soon to a decision about the core category with ungrounded assumptions. Having read many warnings expressed by Glaser (1978; 1992; 2005a; 2013b) regarding researchers forcing pre-conceived concepts and theoretical codes, the Researcher was mostly worried this was happening with the study and therefore returned once again to Glaser (1978), to double check when the transition from open to selective coding should commence. This resulted in feeling considerably more confident about how the study was progressing and that a core category had emerged, albeit the Researcher was now unsure about what it should be named. However, the Researcher decided to stop worrying about this issue, having remembered reading in Glaser (1978), that a conceptual label that isn’t the best fit can be used until one is created that does, and opted to re-name *on-the-same-page, cognitive journeying* as a workable conceptual title and started focusing on where to collect new data.

5.4.1 Theoretical Sampling Considerations and Decisions

Theoretical sampling commences after a core category has emerged and consists of concomitantly collecting, coding, analysing data and deciding what data to collect next and where to find this data in order to develop a theory as it emerges. Glaser and Holton (2004, para. 51) point out the basic question in theoretical sampling is “to what groups or subgroups does one turn to next in data collection – and for what theoretical purpose”, also stating that “possibilities of multiple comparisons are infinite and so groups must be chosen according to theoretical criteria”, this criteria being “theoretical purpose and relevance”. Glaser and Holton (2004, para. 51) also maintain possibilities of multiple comparisons of groups are infinite. Additionally, Glaser and Strauss (1967, 52) state “the simplest comparisons are, of course, made amongst groups which are exactly the same substantive type... These comparisons lead to substantive theory that

is applicable to this one type of group.” This was the case with the substantive theory being developed with the study presented in this Thesis, therefore, rather than being infinite, multiple comparisons were finite and limited to particular types of groups, these being work teams in business organisations that utilised de Bono’s tools.

If for example, the study had focused on the use of any type of thinking by any group of people of any age, in the context of any human interaction or social gatherings, possibilities of multiple comparisons would be infinite. After pausing fieldwork to gain a better understanding of how to conduct classic GT research, the Researcher came to realise there were only three types of groups to choose from. Firstly, work teams already utilising de Bono’s tools; secondly, work teams who knew how to utilise de Bono’s tools and for whatever reason were not currently utilising these tools; and thirdly, work teams who knew nothing about de Bono’s tools²⁴. In regards to the third type of group the researcher could engage with, Glaser and Strauss (1967, 52), state with both substantive and formal theory development, and with both quantitative and qualitative data, a group can be created provided a researcher “keeps in mind they are an artefact of his research design”. Further to this Glaser and Strauss (1967, 58) maintain: “If ongoing events do not give him theoretical relevance, he must be prepared to manipulate events by words or actions in order to see what will happen”.

The first, and third, cross-functional work teams involved with the study were this type of group. The first being a team created from volunteers who had been trained in the correct utilisation of de Bono’s tools, albeit the Researcher facilitated their thinking sessions to ensure they correctly used these tools. The second being a team who knew nothing about de Bono’s tools, with their work team meetings also being facilitated by the Researcher to ensure they used these tools correctly. Glaser and Strauss (56) also point out, a researcher can establish basic categories and the properties of these categories by minimising differences between comparison groups. Once this basic work is complete, a researcher should then maximise differences in accordance with the requirements of the emergent theory and whether the theory being developed is substantive or formal. Furthermore, Glaser and Strauss (58) provide a chart laying out

²⁴ The adoption of the term ‘utilise’ in this Thesis, to imply the correct use of Edward de Bono’s tools, is fully explained in the Introduction to Chapter One.

the consequences of minimising and maximising groups in generating theory, this chart is shown in figure 5.15.

CONSEQUENCES OF MINIMIZING AND MAXIMIZING DIFFERENCES IN COMPARISON GROUPS FOR GENERATING THEORY		
	<i>Data on Category</i>	
<i>Differences in Groups</i>	<i>Similar</i>	<i>Diverse</i>
<i>Minimized</i>	Maximum similarity in data leads to: (1) Verifying usefulness of category; (2) Generating basic properties; and (3) Establishing set of conditions for a degree of category. These conditions can be used for prediction.	Spotting fundamental differences under which category and hypotheses vary.
<i>Maximized</i>	Spotting fundamental uniformities of greatest scope.	Maximum diversity in data quickly forces: (1) Dense developing of property of categories; (2) Integrating of categories and properties; (3) Delimiting scope of theory.

figure 5.15

Consequences of minimising and maximising differences in comparison groups for generating theory.

Source: Figure reproduced from Glaser and Strauss (1967, 58)

5.4.2 *Where to Go Next for More Data?*

As explained in Sections 5.1.5 and 5.3.1, prior to the identification of the core category, the Researcher followed Glaser (1978) and firstly engaged with the most knowledgeable people who had first-hand experience of the phenomenon being studied and then to maximise the possibility of obtaining data and leads for more data, engaged with a work team whose members had never used de Bono's tools. After completing the fourth interview with the third group involved with the study the Researcher decided to continue this strategy and completed interviews with the remaining three members of the team over a two-month period, while continuing to write fieldnotes after fortnightly sessions with the group; field notes during interviews; transcribing interviews, and analysing all data using constant comparison, while still writing copious memos.

After the seventh interview with members of the third group involved in the study was analysed, the Researcher referred to the Glaser and Strauss chart shown in figure 5.15 and decided to keep generating, and verifying the sub-core categories of the core category by finding comparison groups with minimised differences in order to maximise similarities in the data being collected. The fifth interviewee involved in the study, who was an experienced utiliser of de Bono's tools, was contacted to ascertain if it was possible to involve people in their organisation with the study. As explained in Section 5.3.1, this interviewee was a long-term utiliser of de Bono's thinking tools, who for at least eleven years had been training and facilitating work teams they were managing in three different organisations, in the correct utilising of de Bono's tools.

When the Researcher reconnected with this previous interviewee, they had become CEO of the organisation they were working with at the time the Researcher had first interviewed them. The Researcher successfully negotiated the involvement of three comparison groups with minimised differences who were all working on a project sponsored by this CEO and engaged with these groups over a period of four months, as detailed in Section 5.5. At least one member of each team volunteered to be interviewed. Interviews were undertaken during the last two months. The Researcher engaged with these groups, then referred again to the Glaser and Strauss chart (figure 5.14) and made decisions as to where to go next.

A list of groups involved, and interviews undertaken during the whole study, with a summary of primary decisions in relation to theoretical sampling of comparison groups, is provided in figure 5.16. All theoretical sampling decisions listed in figure 5.16 were made within the context of conforming with Human Research Ethics Committee requirements to only engage with groups, in organisations that were willing for their employees to be involved in the study as volunteers and to only conduct interviews with people who volunteered in writing using a Participant Consent Form. A copy of the information sent to organisations requesting their involvement in the study presented in this Thesis by the Researcher, including a copy of the Participant Consent Form is provided in Appendix 1.

The nature and range of work groups (work teams) involved in the study is covered in more detail in Appendix 2.

THEORETICAL SAMPLING DECISIONS, COMPARISON GROUPS AND INTERVIEWS			
Stage of the Study	Comparison Groups	Comparison Interviewees	Researcher's Theoretical Sampling Decisions
Start of the study with open coding.	<p>Organisation (1)</p> <p>GROUP 1</p> <p>Work Team of 5 people.</p> <p>Cross functional work team of an Environmental Services Unit in a Local Government agency (80 employees). Trained in use of two de Bono tool sets for application in business group context.</p> <p>GROUP 2</p> <p>14 people (including Group One Work Team) working in Environmental Services Unit. Trained as per Group 1.</p>	<p>INTERVIEWEES 1-4 (Group 1)</p> <p>Team Members: Unit manager, group leader, two specialist service delivery officers.</p>	Engaged with the most knowledgeable people available at the time the study commenced, who had first-hand experience of phenomenon being studied, as recommended by Glaser (1978, 45).
		<p>INTERVIEWEES 5-8</p> <p>Individuals who had extensive experience ranging from 10 to 15 years, training, working with and belonging to work teams who correctly used all of de Bono's tool sets for use by groups in a business organisation context.</p>	
With core category identified transitioned to selective coding.	<p>Organisation (2)</p> <p>GROUP 3</p> <p>Work Team of 7 people.</p> <p>Cross-functional team in Not-For-Profit organisation (1600 employees). Two people had heard about the Six Thinking Hats, no one else knew about de Bono.</p>	<p>INTERVIEWEES 9-12 (Group 3)</p> <p>Team Members: service delivery manager, volunteer Chairperson organisational advisory committee, service delivery coordinator.</p> <p>INTERVIEWEES 13-15 (Group 3)</p> <p>Team Members: IT manager, finance manager, two clerical support staff.</p>	Decided engaging with a group that had no experience with de Bono's tools would maximise the possibility of obtaining data and leads for more data during the early stage of the study, as also recommended by Glaser (1978, 45).
Delimiting data collection to core category and categories that appeared to be related to core category.	<p>Organisation (3)</p> <p>GROUP 4</p> <p>Work Team of 12 people.</p> <p>GROUP 5</p> <p>Work Team of 9 people.</p> <p>GROUP 6</p> <p>Work Team of 10 people.</p> <p>Cross-functional teams in Local Government Authority (600 employees). Trained in de Bono's Six Thinking Hats tool set for use by groups.</p>	<p>INTERVIEWEES 16-17 (Group 4)</p> <p>Team members: Marketing Manager, outdoor maintenance employee.</p> <p>INTERVIEWEE 18 (Group 5)</p> <p>Team Member: community services employee.</p> <p>INTERVIEWEE 19 (Group 6)</p> <p>Team Member: Coordinator Recreational Services.</p>	Referring to Glaser and Strauss (1967, 58) decided to minimise differences between groups to maximise similarity in data, to keep generating and verifying sub-core concepts of the core category. The aim being to achieve saturation of relevant properties. Also, to start saturating properties of categories most related to the core category.

Continued Page 113

THEORETICAL SAMPLING DECISIONS, COMPARISON GROUPS AND INTERVIEWS continued ...			
Further delimiting of categories related to the core category, to those with best fit.	<p>Organisation (4)</p> <p>GROUP 7 Work Team of 7 people.</p> <p>Independent work team in medium sized not-for-profit environmental services organisation (23 employees). Team Manager trained in de Bono's tools, using tools 15+ years. No one else familiar with tools, or de Bono.</p>	<p>INTERVIEWEE 20</p> <p>Team Member: Team Manager.</p>	Referring to Glaser and Strauss (1976, 58), decided to maximising differences between groups to maximise diversity in data for complete saturation of the properties of sub-core categories and categories related to the core category.
		<p>INTERVIEWEES 21-22</p> <p>Interviewee 21, worked in own business and in several large organisations facilitating work teams using de Bono's thinking tools for 8+ years, trained in use of all de Bono tool sets for use by groups in a business context.</p> <p>Interviewee 22, worked in Organisation 6, facilitating work teams using all de Bono thinking tool sets for groups over 6+ years.</p>	
Further delimiting of categories related to the core category and theoretical saturation of these categories.	<p>Organisation (5)</p> <p>GROUP 8 Work Team of 4 people.</p> <p>Two founding executive directors and two staff of small social enterprise in the youth services area (10 employees). No one knew anything about de Bono's tools or de Bono.</p>	<p>INTERVIEWEES 23-24 (Group 8)</p> <p>Team Members: Co-Founder and Managing Director, Youth Services Coordinator.</p>	<p>Decided to continue maximising differences between groups to maximise diversity in data for saturation of properties and dimensions of sub-core categories and categories related to the core category.</p> <p>Additionally, decided to theoretical sample non-field related data in order to saturate properties of one of the categories related to the core category (<i>structuring</i> later re-named <i>being restrained</i>), this sampling included:</p> <ul style="list-style-type: none"> • Thinking journals with Researcher's thinking output using de Bono's tools over 16 years. • Training manuals for all de Bono tool sets used by study participants.
	<p>Organisation (6)</p> <p>GROUP 9 Work Team of 6 people.</p> <p>Work team responsible for Innovation Program in State Government authority (800 employees). Three members had experienced de Bono's Six Thinking Hats in a work team context. Other members knew about de Bono's tools.</p>	<p>INTERVIEWEES 25-29 (Group 9)</p> <p>Team Members: Team Manager, 3 innovation facilitators, 1 member of the team who managed a specialised services branch of the organisation.</p>	
Further saturation particularly <i>enabling</i> , a sub-core category.		<p>INTERVIEWEES 5,6,8,21,20 22,23</p> <p>Seven interviewees previously interviewed, five a second time and three a second and third time.</p>	As recommended by Glaser (1978, 47), asked top informants to provide data on specific categories that required stabilisation, to achieve full saturation with a particular category.
<p>Number organisations involved in the study: 6 Number different groups: 9. Number of Interviews: 36</p>			

figure 5.16

Theoretical sampling decisions, comparison groups and interviews.

5.5 Delimiting Data Collection and Selective Coding

Selective coding is the stage of substantive coding where a researcher ceases open coding after being sure “he/she has discovered the core variable” and starts delimiting coding, focusing only on those variables that are related to the core category “in sufficiently significant ways as to produce a parsimonious theory”; with selective data collection and concomitant analysis continuing until the core category is sufficiently elaborated, with its properties and theoretical connection fully integrated to other relevant categories (Glaser and Holton 2004, para. 55-56).

5.5.1 *Delimiting List of Categories for Selective Coding*

Holton (2007) explains delimiting for selective coding occurs at two levels. Firstly, as the researcher analyses data, constantly comparing incidents of a category to its properties a theory integrates and solidifies with fewer modifications. Secondly, modifications made later with selective coding are focused on clarifying the logic of an emergent theory and integrating the details of properties into a major outline of interrelated categories. Holton also explains a researcher reformulates their theory with a smaller set of higher-level concepts as they begin to discover an underlying uniformity in the categories and properties of their theory.

With the classic GT theory presented in this Thesis, by the time the Research was interviewing Interviewee 12 (figure 5.16), constant comparison analysis had reduced the original list of codes from 192 to 62. Many codes from the open coding of data, collected while engaging with the first two groups involved in the study, had become superfluous, and others subsumed into identical concepts. After the core category had clearly emerged, and during engagement with the fourth to sixth groups involved in the study, the list of categories reduced to 29. The Researcher was concentrating on selectively collecting data to saturate specific properties of the core category and, therefore after engaging with the seventh group involved with the study and conducting twenty interviews, categories were further reduced from 29 to 22, these being *tooling-up*, *structuring* (reformulated as a property of *tooling-up*), *levelling* and *paralleling* (later subsumed into *cognitive levelling* an element of *structuring*), *tensing*,

oscillating (later re-named *fiddling*, and re-formulated as a property of *tensing*), *committing* (later re-formulated and re-named as *taking-it-on*, and *no-wavering* then re-formulated as properties of *enabling*) *enabling*, *bettering*, *supressing*, *straining*, *stopping* and *rejecting* (later subsumed into *blocking*, and re-formulated as a property of *tooling-up*) *hearing thinking* (later re-named *cognitive hearing*, an element of *structuring*), *regulating*, *angst-ing*, *constantly excusing* (later re-named *rationalising*, and re-formulated as a property of *enabling*), *strategising* (later re-named *getting strategic*, and re-formulated as a property of *enabling*), *thinking space*. The reduction of the number of substantive codes generated during the open coding stage of the study, which was then further reduced with the continuation of constant comparison and delimitation of data being gathered to focus specifically on properties of the core category during the selective coding stage, is illustrated with the example of *cognitive listening*, with the subsuming of 19 original codes into 4 higher-level concepts and re-formulated as dimensions of a cognitive/relational context as shown in figure 5.17.

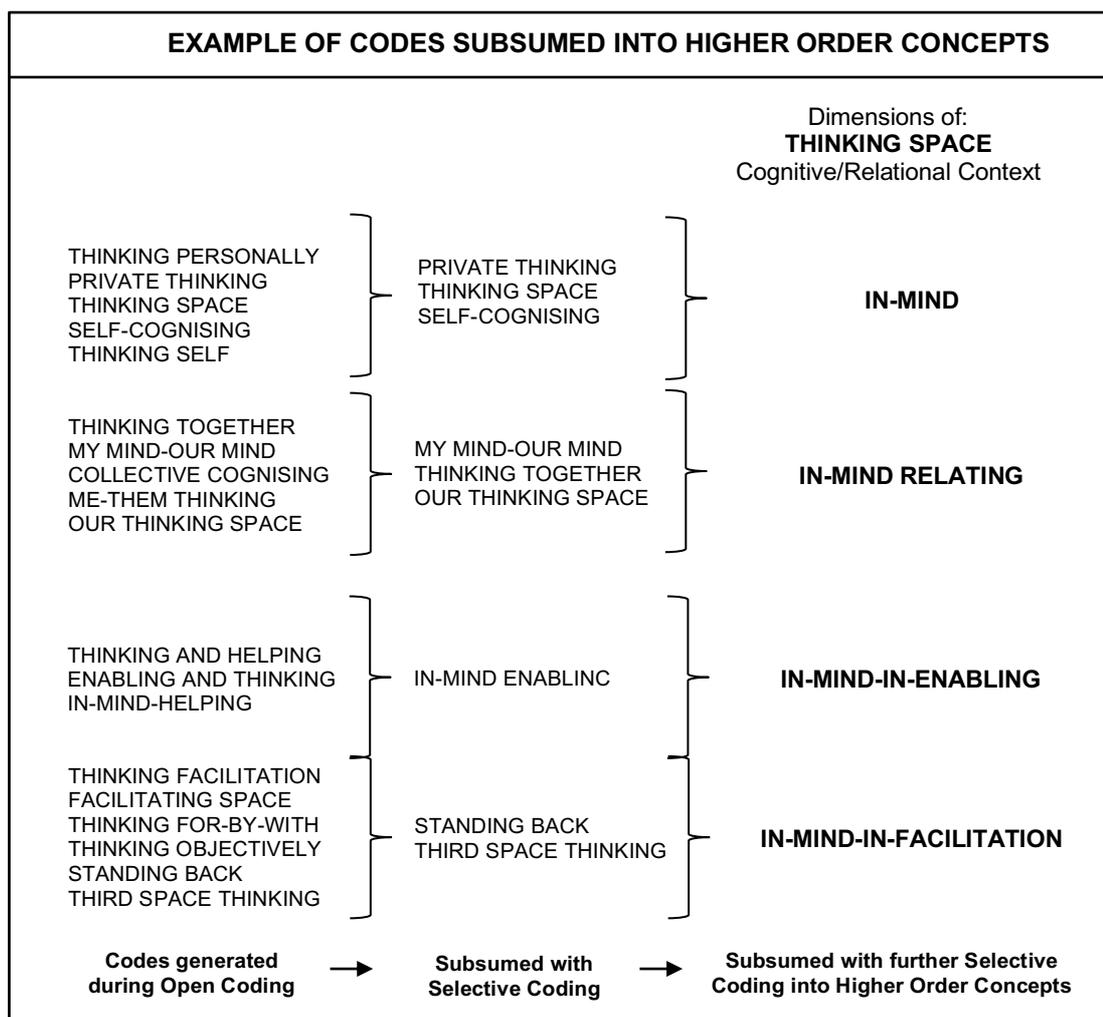


figure 5.17
Example of codes subsumed into higher order concepts.

5.5.2 Groups Involved after Delimiting Data Collection

With the emergence of the core category, the Researcher focused on delimiting data collection to only sub-core categories of the core category and categories related to the core category. As explained in Section 5.4.1 and further indicated in figure 5.16. at this stage of the study, data was collected from the fourth, fifth and sixth groups involved, these being cross-functional work teams in a local government organisation whose CEO was Interviewee 5 for the study. The Researcher engaged with these work teams as both a facilitator and observer over a four-month period with each team utilising de Bono's tools for at least forty-two hours each, while undertaking different projects associated with an organisational development initiative sponsored by the CEO. Over this period, each team was either facilitated by the Researcher, or a volunteer member of the team. When the latter occurred, the Researcher was a passive observer or called upon to help with their utilisation of the tools if and when the team required. To maximise differences in the data, as indicated in figure 5.16, the seventh, eighth and ninth groups were completely different types of groups when compared to each other and when compared to work teams previously involved in the study.

The seventh group was a work team responsible for the operation of a community-based facility open six days a week. The team utilised de Bono's tools for weekly operational meetings lasting two to three hours. Sometimes these meetings were facilitated by the Researcher and most often by the Team Manager who was trained in the utilisation of de Bono's tools and had personally used the tools for at least fifteen years in a business context. Over the four-month period the Researcher observed or facilitated this team's utilisation of de Bono's tools for at least thirty hours. During this time the team focused on many operational tasks. The Researcher interviewed the Manager of this work team during this period (Interviewee 20, figure 5.16) and to further maximise differences in data being collected, while working with this group, two individuals not involved with any group or team involved in the study were also interviewed. Both of these individuals had extensive experience facilitating and working with teams who utilised de Bono's thinking tools within large organisations (figure 5.16, Interviewees 21 and 22). With the decision to continue maximising the differences between groups involved in the study, the eighth group was a work team consisting of founding directors and staff of a small, rapidly growing social enterprise

that provided innovative services for youth at risk. The Researcher engaged with this team over a period of six months as a facilitator, with the group utilising de Bono's tools at least three hours a fortnight and four half days during this time, therefore correctly utilising these tools for at least fifty-one hours, focusing on a variety of tasks.

In contrast to the eighth group, members of the ninth group operated as a special work team specifically set up to catalyse innovation across all sections of a large state government agency. Each member of the team had been seconded from different sections and had been working together for nearly twelve months prior to being involved in the study presented in this Thesis. The team's organisation actively encouraged and financially supported cross-organisation innovation initiatives, including the training of sixty directors and managers in de Bono's Power of Perception and Lateral Thinking tools, seven years prior to the organisation agreeing to be involved in the study. Interviewee 22 was a Manager in this organisation, trained in the correct utilisation of de Bono's tools for the express purpose of being an in-house facilitator utilising these tools to help work teams become more productive, as part of the agency's commitment to organisational innovation. Interviewee 22 had introduced a wide range of work teams to de Bono's tools for at least seven years, therefore three of the people involved in the ninth group had experience utilising de Bono's tools in a work team context prior to the Researcher engaging with them. Over a three-month period, the Researcher facilitated weekly sessions ranging from two hours to half a day as the group worked on tasks associated with their role as a team championing innovation within their organisation. This resulted in this team, as the ninth study group, correctly utilising de Bono's tools for at least fifty-five hours.

By the time the Researcher had finished engaging with the ninth, and last, group involved in the study, the total number of hours spent in the field engaging with work teams either as a facilitator of de Bono's tools and/or observer was considerable, as summarised in figure 5.18.

MINIMUM NUMBER OF HOURS SPENT IN THE FIELD			
Organisation	Groups (Work Teams)	Number of people in Work Team	Hours in the field with Groups
Organisation (1) Small Local Government Authority.	GROUP 1 Environmental Services small team.	5	58
	GROUP 2 Environmental Services Unit full team.	Total group size 14, including Group 1.	18
Organisation (2) Large Not-for-Profit in Aged-Care Sector.	GROUP 3 Cross-functional work team.	7	48
Organisation (3) Medium Local Government Authority.	GROUP 4 Cross-functional work team.	12	42
	GROUP 5 Cross-functional work team	9	42
	GROUP 6 Cross-functional work team.	10	42
Organisation (4) Medium Not-for-Profit in Community Services Sector.	GROUP 7 Administration and operations work team.	7	30
Organisation (5) Small Social Enterprise in Youth Services Sector.	GROUP 8 Executive-level work team.	4	51
Organisation (6) Large State Government Agency.	GROUP 9 Organisational Innovation Unit full team.	6	55
TOTALS		79 people	386 hours

Figure 5.18

Minimum number of hours spent in the field.

5.5.3 *Collecting Data during Selective Coding*

Classic GT researchers use specific terminology regarding types of data that can be collected from people in the field, reference is made to baseline, properline, interpreted data and vaguing out. Glaser (1998, 9) provides clear definitions for these different types of data. Baseline data being “the best description a participant can offer”, properline data being “what the participant thinks is proper to tell the researcher”,

interpreted data “what is told by a professional whose job it is to make sure that others see the data his professional way” and vaguing out is where “there is no stake in the participant telling the researcher anything, so he just vagues out”. Having become aware of the terminology ‘baseline’ and ‘properline’, while investigating various classic GT PhD theses during the time the study was paused, the Researcher did not fully understand the meaning of these descriptors for the type of data that might be provided by study participants, until the selective sampling stage of the study.

While contemplating whether to conduct individual interviews with Interviewees 21 and 22 (figure 5.16), the Researcher decided to search for clear definitions of these data types, once these definitions were confirmed they were considered in regards to not only conducting an interview with Interviewee 22, also with regard to previous interviews which the Researcher had conducted earlier in the study, particularly with Interviewees 5, 6, 7 and 8, which like Interviewees 21 and 22 were people who had been trained in de Bono’s tools and as accredited instructors had often worked as contracted consultants training, facilitating and/or mentoring individuals and groups in the utilisation of the tools. After gaining a better understanding of the different types of data collected from interviews or conversations with people participating in a classic GT study and considering the interviews conducted up to this point in the study, the Researcher recognised a considerable amount of data collected during the interview with Interviewee 7 was properline. However, other than this interview the Researcher was satisfied all other interviewees up to this stage had provided baseline data.

With very little, or no encouragement, from the Researcher interviewees had been willing to share their personal experiences, including Interviewees 5, 6, 7 and 8, albeit most of the data collected from Interviewee 7 was properline. The Researcher contributed this willingness to the nature of the grand tour question and decided to also ask this question at the beginning of all interviews during the selective coding stage of the study, because it appeared to put all interviewees at ease and quickly stimulated reflections about their experiences with de Bono’s tools. Also it elicited incidents which helped saturate the core category and the Researcher found it easy to progress to deliberately asking open-ended questions which directed an interviewee’s attention to a topic that would provide more data to saturate specific properties of the core

category, as illustrated with examples of excerpts from interviews with Interviewees 16, 17 and 18 (figure 5.19).

EXAMPLE QUESTIONS USED TO SATURATE PROPERTIES OF THE CORE CATEGORY	
QUESTION:	What are your thoughts about the tools having specific names?
Researcher's aim:	saturate elements of <i>structuring</i>
Incident coded:	<i>linguaging operational thinking</i>
G3-P1:38	<i>"I think remembering, remembering the names of the tools, well even the Hats when you start, and using the names when you actually use the tool, you have to think the name and use the tool, at the same time".</i>
QUESTION:	What are your thoughts about the type of interpersonal interaction that occurs between members of a work team when they utilise de Bono's tools?
Researcher's aim:	saturate aspects of <i>distinguishing-on-the-same-page</i>
Incident coded:	<i>collective equalising</i>
G3-P3:63	<i>"You can have an intellectual connection through using the tools with someone you may not be friends with and have a decent level of equality and I think that is a really important thing. Because we know that our perceptions of others do impact on the way we view their thoughts and ideas. Um, and by using the tools it creates this environment where there is true equality in thinking, with everyone's thinking. Rather than putting viewpoints, you know, rather than building this wall and going whatever that person has to say I've really got no interest when you've got a team where everyone is equal with their thinking, um their ideas, no matter what they, the ideas are, then yeah there's a level of equality you don't experience other times".</i>
QUESTION:	What's been your experience about concentrating when you are using the tools as a member of a team?
Researcher's aim:	saturate elements of <i>structuring</i>
Incident coded:	<i>focused levelling</i>
G3-P2:45	<i>"Yeah I think I referred this before, in that group setting when you're under a particular Hat you're, you're grappling within your own mind to stay on task and as I said, at the same time as doing that and getting your own thoughts worked out, following the Hat, staying with the Hat you're using, you are having to stay on-task with what everyone is having to think about, that means staying on-task with what the Focus is".</i>

figure 5.19

Example questions used to saturate properties of core category.

5.5.4 Memos during Selective Coding

By the time the Researcher was engaging with the eighth group, hundreds of memos had been written in several Livescribe Lined Journals, the cost of which was starting to become prohibitive. Therefore, the Researcher decided to only use these Journals for fieldnotes and started writing memos on cards. Now at an advanced stage of selective coding, these memos were either short, focusing on a specific aspect of a

concept, or long, often complicated summaries of the properties of categories being saturated, shown with an example memo in figure 5.20. This memo was written after analysing the field notes and transcript from the interview with Interviewee 22.

FOCUS: TENSING (DIFFERENTIATING) - 1

Differentiating is a temporal-based concept ... it has a time aspect to it because it starts with an awareness of anomalies, what's normally expected: people will argue or at the very least express different points of view and stick to their point in opposition to others (polarising) – for example. This is considered 'normal', the way things happen with meetings and when people are discussing things together – so this normal situation is what is expected and this expectation of normal starts to change – differentiating starts to occur ... because hmmm ... because of the gradual awareness of anomalies. And sometimes not so gradual – can be a sudden awareness (two dimensions?) – nevertheless differentiating starts with an awareness of anomalies – what used to be normal is no longer normal, a perceptual shift occurs - has occurred - there is an awareness of difference – awareness of not-on-the-same-page as compared to on-the-same-page. An awareness that comes after experiencing on-the-same-page, which was the 'abnormal' at first then became considered how things should be – a new normal. So following this awareness comes separating oneself from what is going on. People become separate from, no longer part of the group as they hear the thinking that's happening – there is a definite separate-ness that occurs “re-positioned my relationship with them” G3-P2: 34. There's a 'standing back' from being engrossed in content – the content-specific nature of people's discussions to a far more objective stance: hearing what's going on cognitively amongst people, in-between everyone rather than being absorbed in what everyone's talking ABOUT.

*reading memos focusing on levelling: notes I've made about the major difference of having no hierarchy – and not depending on a leaders or a manager – or more prominent personality – with no fear of being an independent thinker - there's a shift of perception there from being dependent to being independent where you are free to have thoughts of your own ... wondering if this a prerequisite condition for the awareness that occurs with differentiating - prerequisite for differentiating ??

With the temporal nature of differentiating AFTER separating comes reflecting. Having become aware of what used to be considered normal being different from what is now normally experienced when using the tools and separating oneself from what is going on a reflecting occurs. This appears to be like metacognating except it's not – no it's not like metacognating because it's not an individual thinking about their own thinking – it's a reflecting on what's going on with the group and the interactions amongst people – it's a reflecting basically on the various aspects of not-on-the-same-page – polarising, powering, holding back, bouncing around ... whichever is occurring in the moment when reflecting occurs – definitely a person stands back from the cognitive-interpersonal processes they are now perceiving as not normal compared to on-the-same-page and reflect – have an in-mind 'conversation' with themselves – or just a momentary reflective/objective thought about the situation being definitely not the same as what the experience when they are with others who are using the tools ... when THEY and OTHERS use the tools TOGETHER. SO

Aspects of differentiating:

* awareness: awareness of anomalies *dictionary meaning: something that deviates from what is standard, normal or expected* this definitely fits with the first step of differentiating – when someone has experienced on-the-same-page – not-on-the-same-page is a deviation from what is now expected as 'normal'.

*separating: cognitively separating from being content-centric – being apart from the cognitive/interpersonal interactions that are now clearly perceived as being not-on-the-same-page because of awareness of the deviation from on-the-same-page.

*reflecting: even if only momentary there is objective/reflective thinking about what is going on – how different on-the-same-page is to not-on-the-same-page, no matter what aspect of not-on-the-same-page is being experienced at the particular point in time someone is with others who are not using the tools.

Figure 5.20

Memo: written during selective coding.

5.5.5 *Re-interviewing Top Informants*

Glaser (1978, 47) recommends a classic GT researcher “note relevance by its constant or patterned re-occurrence in informant’s discussions and stories, and to note saturation by the end of discovering new properties on a category. Further to this, a researcher can check relevance, gain on-going sampling, verification and stabilisation of focus for the saturation of categories that are proving to become core to the analysis, by asking top informants to give more data on these categories. By the time the Researcher had finished interviewing members of the ninth group, memos had been written noting the saturation of the sub-core categories, with no new data being collected on these categories, except the properties of *enabling*.

Each time the Researcher had observed or interviewed people who deliberately took on the role of a ‘Blue Hat facilitator’ with work teams, data emerged that definitely indicated *enabling* was the final phase of what was still being referred to, at this stage in the study, as *cognitive journeying*.²⁵ It had become obvious to the Researcher therefore, *enabling* was not going to be fully saturated unless data was collected from people who had considerable experience facilitating and supporting work teams to correctly use de Bono’s tools. The Researcher decided the best way to collect this data would be to re-engage with top informants, as recommended by Glaser (1978).

Subsequently, a second interview was arranged with Interviewee 5, the CEO of the third organisation involved in the study, this was followed by a second interview with Interviewee 22, the long-term in-house facilitator of work teams operating in the sixth organisation involved in the study. Unexpectedly, the Researcher then travelled to Melbourne again and had an opportunity to conduct a second interview with two previous informants with extensive experience facilitating and mentoring both individuals and work teams in the correct use of de Bono’s tools (Interviewees 6 and 8, figure 5.16).

²⁵ With de Bono certified training a blue hat facilitator is referred to as a ‘Blue Hat Wearer’, meaning anyone who has completed advanced training in *Edward de Bono’s Six Thinking Hats*® and acts as leaders in meetings where teams are using the Hats (de Bono 2009e).

Following these interviews, the Researcher gathered more data from Interviewee 23, the Managing Director of the fifth organisation involved in the study and the most recently trained of all the top informants in de Bono's tool sets for use by groups, then re-interviewed three of these top informants (Interviewees 5, 20 and 23, figure 5.16) before *enabling* was fully saturated. As with all other interviews conducted for the study, other than those undertaken in Melbourne, field notes were written during each interview, and both field notes and interview transcripts analysed prior to holding a second or third interview with each of the top informants.

Given the saturation of the properties of *enabling* was so dependent on these top informant's experience supporting others in the use of de Bono's tools, when the study progressed to collecting additional data from these interviewees, they were not asked the grand tour question again. In order to saturate particular properties of *enabling* as a property of the core category, very specific questions were prepared before each interview, as determined by data analysis of a previous interview. The specific questions prepared for the second interview with Interviewee 5 (figure 5.16) as a top informant, is an example of this shift in the collection of data (figure 5.21).

QUESTIONS FOR SECOND INTERVIEW WITH A TOP INFORMANT TO SATURATE ENALBING
What is your experience introducing the tools to other people who don't know the tools?
What is it like working with a team that doesn't know the tools?
When you introduce the tools to a team that doesn't know them, how do you go about that?
What are the most important things for you when you are working with a team that doesn't know the tools?
How do you operate with a team that knows about the tools?
Why do you introduce a work team to de Bono's tools?
How do you help a team to use the tools correctly?
What is 'use the tools correctly' mean for you?
After a team has started using the tools can you think of anything you specifically do to help them be independent of your support?
If a team resists using the tools, how do you handle this kind of situation?
What else can you tell me about your experiences helping work teams correctly use de Bono's tools?
Do you have any other stories you would like to share about work teams using or not using de Bono's tools?

figure 5.21

Questions for second interview with a top informant, to saturate Enabling.

5.6 Theoretical Coding, Sorting Memos and Writing Up the Theory

As stated at the beginning of this Chapter, it is difficult to explain the process of conducting a classic GT study in a linear fashion, when the process is anything but linear. With the Researcher having to undertake the study on a part-time basis, theoretical coding with the study presented in this Thesis occurred over months while trying to saturate categories; delimiting categories during saturation; writing copious memos on possible theoretical codes; choosing theoretical codes and then abandoning them as saturation progressed; commencing memo sorting; going back to check empirical data; re-sorting memos; writing new memos with several different perspectives regarding the overall theoretical framework and constantly making changes to the emerging framework. This continued into the period the Researcher was writing up the theory, as new memos continued to be generated and subtle changes made to the overall theoretical framework. With the aim of explaining how theoretical coding, sorting memos and writing up the theory presented in this Thesis was undertaken by the Researcher in accordance with classic GT practices, it should be noted this Section will only cover salient issues and decisions regarding theoretical coding, memo sorting and writing up the theory presented in Chapter Six, and will be undertaken in a way which may indicate a simpler linear process than actually occurred during the study.

5.6.1 Theoretical Coding

Glaser (1978, 2005b) explains theoretical codes (TCs) relate to each other as hypotheses, like substantive codes, they are emergent and “weave the fractured story back together again”. A classic GT researcher is expected to apply theoretical codes as “abstract models”. However, TCs can be “empty abstractions” without substantive codes, therefore a TC must “earn its way like a substantive code” and must be “grounded”, not just a “logical elaboration”. TCs are flexible, several may fit the same data and the choice of TCs “starts determining integrative patterns which limits the freedom in further choices” (Glaser 1978, 72). A researcher must always stay open to the emergent, earned relevance of a TC, this means being open to the fullest range of TCs as possible. With hundreds of TCs, a classic GT researcher should “learn and

master sensitivity to as many TCs as possible by perusing the literature of many scientific fields, including social psychology, sociology, philosophy, organisational theory economics, political sciences, history and biochemistry” (Glaser 2005b, 5). As indicated in Section 5.3.2 Glaser originally listed eighteen frequently used and familiar ‘coding families’ and later extended this list with a further twenty-three TCs (Glaser 1978; 2005b). Glaser (2005b, 32) points out the strength of a TC:

.. reveals itself in the conceptual punctuation of the theory. The integration makes clear how well all the categories and properties fit and work together. It provides the imagery for how the core variable continually resolves the main concern of the participants.

With theoretical codes being flexible, not necessarily mutually exclusive, and overlapping considerably, the grounded theorist needs to know many theoretical codes in order to be sensitive to rendering explicitly the subtleties of relationships in their data. With the more codes the researcher learns the more the researcher is empowered to recognise them as they emerge during the theoretical coding phase of their research Glaser (1978, 1998, 2005b). Regarding how a researcher chooses TCs that fit, Glaser (2005b, 48) maintains:

We only have the best fit emergence of the TC based on the researcher’s sensitivity. There are many other TCs or a mix. But the chosen emergent fit will undoubtedly be as close to the data as the analyst can make it. This is all that can be asked. The analyst should take the chance of choosing what appears to be an emergent TC and not yield to forcing a priori, a discipline TC to resolve, apparently safely, the fear of choice.

With the study presented in this Thesis a wide range of theoretical codes were utilised including the Six Cs coding family; stage and phases from the process coding family; degree from the degree coding family; dimensions, elements from the dimensions family; tipping point from the cutting point family, temporal ordering from the temporal ordering family (Glaser 178). Other theoretical codes included reinforcing feedback loops and modelling the core category as a cognitive/relational process.

Modelling A Core Category as a Basic Social Process

A basic social process (BSP) is one type of core category which ‘processes out’, which means regardless of whether a main concern is solved, in some way the core variable

(category) will process it with two, or more, emergent stages. Glaser (1978) maintains a core variable will always emerge in a grounded research study, whereas a BSP may not, in which case the core variable will be theoretically modelled using other theoretical codes which do not constitute a process model with delineated stages. The stages of BSPs are discernible, with change occurring over time and because there are breaking points that demarcate them, these stages can be treated as distinct theoretical units. Furthermore, there are two types of BSPs, basic social psychological process (BSPP), this being implied by a BSP, and basic social structural process (BSSP), this being the social structure within which the BSPP processes (Glaser 1978). A classic GT analysis can emphasise either the BSSP or BSPP, or a mix. Glaser (1978, 103) explains that studying a process which optimises change, fluidity and unfreezing of behavioural patterns is likely to be an emergent mix which would emphasise the BSPP, however if a structural phenomenon is being studied, such as people engaging in a new health practice, “one would also bring in the new BSSP that supports the BSPP”.

Glaser and Holton (2005, 17) also explain the BSP theoretical construct was originally conceived as a “by-product emergent in the process of doing and developing the methodology of grounded theory research”. BSPs are considered to be fundamental patterns in organisation of social behaviour as it occurs over time, examples being the basic social processes of ‘cultivating’, ‘defaulting’, ‘becoming’. BSPs can be found either by discovery or emergent fit, Glaser and Holton (2005, 17) clarify discovery as:

By discovery, the analyst goes to a fairly contained social unit attempting by observation and interviewing to see as much as possible and find out the salient social problem of the people there. Then s/he discovers the core variable – hopefully a BSP – that accounts for most of the variation in behaviour about the problem. S/he then switches focus from studying the unit to studying the process and proceeds to generate a substantive theory of the process by constant comparisons of incidents within different comparative groups in the same substantive class.

Regarding the study of social units, Glaser (1978, 109) maintains that most sociology is focused on analysing the characteristics of social units, regardless of whether this is description, verification or theory development, rather than process analysis, as is the case with classic GT. Further to this Glaser (1978, 109) states that “in themselves the focus on either unit or process sociology is not intrinsically meritorious”, the more

important issue being how well either may contribute to sociology knowledge, the business at hand and the “sociological renderings of the world”. By focusing on process as well as units, Glaser (1978) maintains BSPs have many comparative advantages over unit analysis and facilitate theoretical development in sociology.

5.6.2 Theoretical Modelling: Core Category of the Theory

By the time the Researcher was ready to start memo sorting, the core category was being perceived as a BSP/BSSP emergent mix. Properties had emerged as distinct theoretical elements processing the main concern of people who use de Bono’s tools correctly during work team occasions, and it was evident this was a pattern of cognitive and concomitant behavioural change over time with clearly demarcated stages of change over time with tipping points that irrevocably led to new cognitive abilities and concomitant behaviours while interacting with others during work team occasions.

However, as the Researcher kept returning to read the characteristics of process analysis as described by Glaser (1978, 109, 113) in order to clearly understand the nature of BSPs/BSSPs, the Researcher’s perception regarding the core category of the emerging theory unexpectedly shifted. The Researcher began to challenge her long-standing assumption that the core category of the Theory emerging from the data collected for the study, was a BSP/BSSP emergent mix. As discussed by Glaser and Holton (2005, 17), the Researcher had engaged with groups during the study which were indicative of a particular kind of ‘contained social unit’ and had also identified the most important concern of the people who were members of this kind of social unit. The Researcher had also discovered this concern is processed through clearly demarcated stages that emerged over time. However, the Researcher had been observing and interviewing people whose behaviours were determined by the thinking they undertook, when and only when, they used de Bono’s thinking tools. Therefore, the Researcher decided it was impossible to claim that the core category was a BSP, given as Glaser (1978, 115) explains “BSP’s as basic uniformities of social life, cut across the boundaries by which sociology has traditionally been sub-divided”. The Researcher’s shift in awareness about the theoretical modelling of the core category during the theoretical coding stage of the study is clear in a memo written at this time, as provided in figure 5.22.

FOCUS: Blue Hat 12/4 – Y2

It's the first time I have felt so strongly the relationships between tooling-up, tensing, enabling, can be fully integrated to form a theory that fits, is workable, modifiable and ... the structuring of tooling up changes personal cognitive capabilities until a tipping point occurs and this causes tensing and now it's making sense that structuring is within a cognitive/relational context, and so is tensing and then again – so is enabling ... but this isn't the core category being a BSP or a BSSP because it's so specific to personal cognitive change – that is – yes relational at the same time – however specifically occurring because de Bono's tools are being utilised – it is definitely a process because it is change over time, with three clearly differentiated stages – tooling-up, tensing, enabling. However, it only all makes sense if the core category is modelled as a process of cognitive/relational change not BSP or BSSP – because the context of personal change in cognitive abilities that have a relational aspect are so clearly – personal, it's not about change in patterns of social life per se – it's patterns of change in personal cognitive abilities that may indeed have an impact or cause changes in 'social life' – but I don't have any evidence of that – that's not what's emerged with the study.

figure 5.22

Memo: theoretical modelling of the core category.

With a shift in perception regarding the modelling of the core category the Researcher resolved to continue sorting memos and to be more diligent about the modelling of the core category, as a process of change in cognitive capability, working and having relevance. This required the Researcher to increase her efforts to comply with the analytical rules guiding the sorting of memos.

5.6.3 Sorting Memos with this Study

Substantive codes come from constant comparison of incidents in the collected data; when all categories and their properties are saturated a researcher's memo bank of mature memos is sorted by hand. Glaser (2005b, 32) maintains that after a substantial amount of data collection, much theoretical sampling and through theoretical saturation of categories, memos will "mature in ideation" and "mount up to a memo bank". Sorting by hand, the researcher re-codes when necessary and can "take chances on a theoretical model to see if it will work". With the constant comparison of mature memos with each other and with a TC or TCs to model the theory, theoretical completeness is achieved when concepts fit, work, have relevance and are saturated. There are analytical rules that guide the construction of a theory as it emerges, however, that the classic GT researcher is expected to follow. These rules guide the theoretical sorting of memos and subsequent writing of the theory. Drawing on Glaser and Holton (2004, para. 71-74), these rules are listed in figure 5.23.

ANALYTICAL RULES GUIDING THEORETICAL SORTING OF MEMOS AND WRITING-UP A CLASSIC GT
<p>SORTING STARTS ANYWHERE</p> <p>Sorting starts with the random selection of a memo, this forces the beginning, middle and end of writing up a classic GT theory. Conceptually locating first memos leads to reasoning out the integration of ideas.</p>
<p>FOCUS ON THE CORE CATEGORY FIRST</p> <p>Sorting starts anywhere, with a focus on the core category, then all other categories and properties, only as they relate to the core variable, in order to force focus, selectivity and delimiting of the analysis. Theoretical coding is undertaken to 'figure out' and decide on the meaning of the relation of a concept to the core category. This theoretical code is written and sorted into the appropriate pile with the substantive code.</p>
<p>STOP SORTING AND MEMO</p> <p>Constant comparisons after sorting the core variable begins generates new ideas on theoretical codes integrating the theory. Sorting should stop and new ideas memoed, the memo is then sorted into the integration.</p>
<p>CARRY FORWARD USE OF CONCEPTS</p> <p>The use of a concept is carried forward from the point of its introduction into the theory; only illustrated once when it is introduced to develop the imagery of its meaning after which only the concept is used not the illustration. Sorting forces the introduction of an idea in one place, and then establish its carry forward throughout the theory when it is necessary to use it again in other relations.</p>
<p>ALL IDEAS MUST FIT SOMEWHERE IN THE OUTLINE, IF NOT, THE INTEGRATION IS CHANGED OR MODIFIED</p> <p>The fitting of all categories cannot be ignored otherwise the researcher will break out of the theory too soon and necessary ideas and relations will not be used. If integration is not occurring the researcher must re-sort and re-integrate for a better fit of concepts. This intensely generative process means many theoretical coding memos are written to be resorted into the outline.</p>
<p>THEORETICAL COMPLETENESS AND CUTTING OFF THE STUDY</p> <p>Theoretical completeness implies theoretical coverage as far as the study can take the analyst. In cutting off the study the researcher explains with the fewest possible concepts and greatest possible scope, as much variation as possible in the behaviour and problem under study. How people continually resolve their main concern is explained by a classic GT theory with concepts that fit, work, have relevance and are saturated.</p>

figure 5.23

Analytical rules guiding theoretical sorting of memos and writing-up a classic GT.

Processes Adopted for Managing and Sorting Memos

Up until the stage of sorting memos, all memos written by the Researcher had been placed one on top of the other. As the pile continued to grow the Researcher decided to loosely divide it for convenience, into the five stages perceived by the Researcher

to be an emergent process which was a BSP/BSSP mix. As the saturation of the properties of the core category continued with theoretical sampling, new memos were mostly placed in one of these five piles. With the study moving on with theoretical memoing, the burgeoning piles were put into five boxes, with more mature memos stacked on top of early, less mature memos. Also, by this time, there were long memos written on A4 (letterhead) sized cards that focused on developing a theoretical framework with the integration of theoretical relationships between properties of the core category. These longer theoretical framework-type memos were placed on a pile separate to the five boxes of memos that had accumulated with the saturation of the properties of the core category.

Following the analytical rules as listed in figure 5.23, the Researcher commenced sorting by placing the first memo on top of the pile of memos from one of the boxes of memos on a large table. Working through the box of memos, each memo was compared to previous memos placed on the table and rows of related memos started to form, as shown in figure 5.24. The Researcher kept track of the sorting by writing further memos about theoretical coding decisions. As the memos were sorted, large cardboard trays (tops from archival packing boxes) were used to 'file' the sorted memos, as shown in figure 5.25.

At the same time as memos were being sorted on the large table, on a separate long bench, the Researcher used different coloured Post-it notes to depict the overall theoretical framework as it emerged, using various ways to indicate theoretical codes which modelled relationships between all of the elements of the framework. At this stage these elements were the properties of the core category as a five-stage process. A combination of yellow and blue Post-It notes 'mapped' out the theoretical framework as it emerged, as shown in figure 5.26. With the memo sorting leading to decisions regarding theoretical modelling of relationships between many properties, other devices such as arrows, brackets and red dots indicating causal relationships, were also used (figure 5.26). As the theoretical framework kept emerging with further delimiting of properties and re-formulating of concepts, with more theoretical memoing, the Post-It notes were rearranged, with arrows and brackets changed accordingly and gradually the theoretical framework stabilised into three stages of the core category, now definitely considered to be a process of change in cognitive

capability. Throughout this process the Researcher constantly wrote theoretical coding memos regarding all relationships, filing these in transparent sleeves with a label relating to a section or sections of the framework, as shown in figure 5.27.



Figure 5.24

Mature Memos sorted on large table.

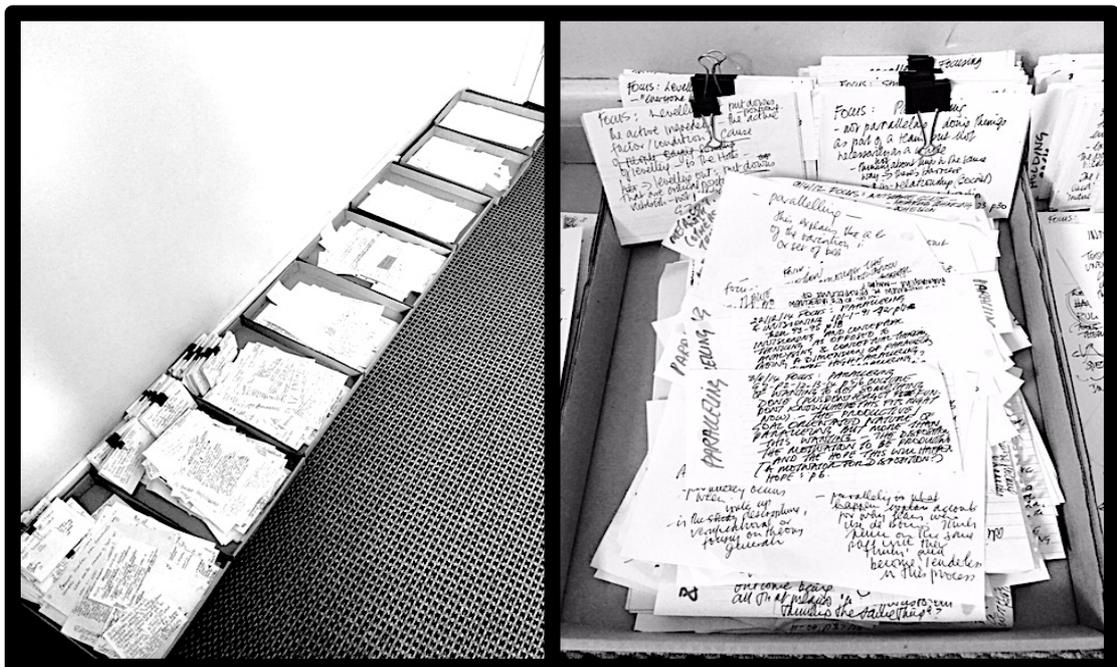


figure 5.25

Sorted memos 'filed' in large cardboard trays.

5.6.4 *Committing to Theoretical Codes*

The process of sorting memos was at times confusing and arduous, with the Researcher nervous about being sufficiently skilled to perceive the best possible fit of theoretical codes. By continually referring back to the work of classic GT theorists, as cited in this Chapter, the Researcher persevered, conformed to the analytical rules for theoretical sorting of memos and gradually gained the confidence to fully commit to a process of change in cognitive capability as the best-fit theoretical model for the three stage process of *getting-on-the-same-page*. With this decision it became easier to sort and re-sort memos for an integration of all properties of the core category into a multivariate theory.

As a coherent overall theoretical framework emerged, de-limiting also became easier with some substantive categories becoming properties or dimensions of other categories. For example, *levelling*, which for a long time during the study was theoretically conceptualised as a fourth stage in a five-stage theoretical framework, was eventually fitted into the overall theoretical framework more appropriately as a property of *tooling-up*, the first stage of *getting-on-the-same-page*.

5.6.5 *Writing-Up the Getting On-the-Same-Page Theory*

Writing up is the final stage of classic GT methodology and must “put into relief the conceptual work and its integration into a theoretical explanation” (Glaser 1978, 129). As a ‘write up’ of the ideas from piles of theoretically mature sorted memos, writing up a classic GT theory sums up all the work that has occurred. However, as also explained by Glaser (1978, 129), the write up of sorted memos is “a theory of a core variable which freezes the on-going for the moment”.

Writing up the theory of *Getting On-The-Same-Page* for presentation in this Thesis commenced when the Researcher decided the process of sorting memos was saturated, no new formulations of the overall theoretical framework were emerging, theoretical relationships between the properties of the core category had stabilised into an integrated theory, and the Researcher was satisfied fit (validity), workability, relevance and modifiability had been achieved.

Conceptual integration adequately expressed the pattern of theoretical relationships that had emerged in mature memos, between concepts which were valid, given that each concept adequately expressed conceptually, a pattern in the data which had been determined through constant comparison. Regarding workability, the Researcher was satisfied the properties of the core category were related into hypotheses that provided a sufficient account of how the main concern of users of de Bono's tools, in the substantive area of work teams functioning in business organisations, is resolved. However cognisant of the non-linear nature of classic GT analysis, the Researcher was prepared to commence writing up the theory while continuing to write new memos, re-sort memos and refine the Theory at the same time as writing it up.

The Researcher particularly felt comfortable the *Getting On-The-Same-Page* Theory had relevance for study participants and writing-up could commence, after discussing the Theory with five of the study's top informants, and finding that at least two of them were keen to introduce various concepts from the theory into discussions with work teams they were helping to utilise de Bono's tools. Regarding modifiability, the theory was constantly modified during memo sorting and continued to be modified during the write up. Whilst this did not completely indicate its modifiability if new substantive data was collected from sites outside the context of work teams in business organisation, the Researcher believed the theory was and would be modifiable.

CHAPTER SIX OVERVIEW

GETTING ON-THE-SAME-PAGE CLASSIC GROUNDED THEORY	
INTRODUCTION	
▼	
6.1 MAIN CONCERN OF USERS OF DE BONO'S THINKING TOOLS IN BUSINESS ORGANISATIONS	
Overall Objective Explain the main concern of people who use de Bono's tools in the substantive area of business organisations.	<p>Section 6.1.1 Experiencing the Impact of the Not-On-The-Same-Page Problem</p> <p>Specific Aim Explain the main concern of people who use de Bono's tools in business organisations and how this is related to their perception that work teams are never on-the-same-page during work team occasions when de Bono's tools are not utilised.</p> <hr/> <p>Section 6.1.2 Resolution of Users of de Bono's Tools Main Concern</p> <p>Specific Aim Briefly explain how the main concern of users of de Bono's tools who work in the substantive area of business organisations is resolved with the cognitive capability process of <i>getting-on-the-same-page</i> and introduce this three-stage process.</p>
▼	
6.2 GETTING-ON-THE-SAME-PAGE STAGE ONE: TOOLING-UP	
Overall Objective Explain in detail, the properties of Tooling-Up, the first stage of the <i>getting-on-the-same-page</i> .	<p>Section 6.2.1 Overview of Tooling-Up</p> <p>Specific Aim Provide an overview of the theoretical hypotheses that constitute Tooling-Up as the first stage of <i>getting-on-the-same-page</i>.</p> <hr/> <p>Section 6.2.2 Tooling-Up: Blocking</p> <p>Specific Aim <i>blocking</i>: a property of Tooling-Up characterising the intentional non-utilisation of de Bono's tools by a prospective user at the time when they are introduced to the tools by a more knowledgeable other.</p> <hr/> <p>Section 6.2.3 Tooling-Up: Structuring</p> <p>Specific Aim Explain <i>structuring</i>: a property of all stages of <i>getting-on-the-same-page</i> characterising changes in cognitive capability with the utilisation of de Bono's, after a prospective user has been introduced to the tools by a more knowledgeable other.</p> <hr/> <p>Section 6.2.4 Tooling-Up: Regulating</p> <p>Specific Aim Explain <i>regulating</i>: a property of all stages of <i>getting-on-the-same-page</i> characterising the self-instigated guidance of personal thinking, when utilising de Bono's tools.</p> <hr/> <p>Section 6.2.5 Tooling-Up: Straining</p> <p>Specific Aim Explain <i>straining</i>: a property of all stages of <i>getting-on-the-same-page</i> characterising the confluence of emotional discomfort and utilisation of de Bono's tools.</p> <hr/> <p>Section 6.2.6 Tooling-Up: Suppressing</p> <p>Specific Aim Explain <i>suppressing</i>: a property of all stages of <i>getting-on-the-same-page</i> characterising self-induced tempering of <i>straining</i>.</p> <hr/> <p>Section 6.2.7 Tooling Up: Bettering</p> <p>Specific Aim Explain <i>bettering</i>: a property of all stages of <i>getting-on-the-same-page</i> that is an antecedent cognitive/emotive condition characterising a prospective user or user of de Bono's tools disposition towards learning</p> <hr/> <p>Section 6.2.8 Tooling-Up: Closing Down</p> <p>Specific Aim Explain <i>closing-down</i>: a property of Tooling-Up characterising disengaging from any utilisation of de Bono's tools, unless there is a requirement to utilise the tools in a work team context by someone with the authority to stipulate this requirement.</p>

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	<p>Section 6.2.9 Bettering and the Continuation/Discontinuation of Tooling-Up</p> <p>Specific Aim Explain the causal relationships between dimensions of <i>bettering</i> and other properties of the core category which explain the continuation and/or termination of each stage of <i>getting-on-the-same-page</i>.</p>
	<p>Section 6.2.10 Tooling During Tooling-Up</p> <p>Specific Aim Explain Tooling: a higher order property of <i>getting-on-the-same-page</i> as the core category of the Getting On-The-Same-Page Theory.</p>
<p>6.3 GETTING-ON-THE-SAME-PAGE STAGE TWO: TENSING</p>	
<p>Overall Objective</p> <p>Explain in detail the properties of Tensing, the second stage of <i>getting-on-the-same-page</i>.</p>	<p>Section 6.3.1 Overview of Tensing</p> <p>Specific Aim Provide an overview of the theoretical hypotheses that constitute Tensing as the second stage of <i>getting-on-the-same-page</i>.</p>
	<p>Section 6.3.2 Tensing: Distinguishing</p> <p>Specific Aim Explain <i>distinguishing</i>: a property of Tensing characterising the identification of cognitive interplay during work team occasions when de Bono's tools are either utilised or not utilised, that are specifically perceived as indicating a work team is either on-the-same-page or not-on-the-same-page.</p>
	<p>Section 6.3.3 Tensing: Angst-ing</p> <p>Specific Aim Explain <i>angst-ing</i>: a property of Tensing characterising the emotional stressing occurring with <i>distinguishing-not-on-the-same-page during work team occasions when de Bono's tools are not utilised.</i>,</p>
	<p>Section 6.3.4 Tensing: Fiddling</p> <p>Specific Aim Explain <i>fiddling</i>: a property of Tensing characterising self-initiated attempts to stop the types of cognitive interplay that always indicates a work team is not-on-the-same-page during a work team occasion when de Bono's tools are not utilised.</p>
	<p>Section 6.3.5 Tensing: Structuring</p> <p>Specific Aim Explain <i>structuring</i> a property of Tensing that characterises changes in cognitive capability with the utilisation of de Bono's tools.</p>
	<p>Section 6.3.6 Tensing: Rationalising</p> <p>Specific Aim Explain <i>rationalising</i>: a property of Tensing characterising the adoption of plausible reasons for abandoning informal <i>fiddling</i>.</p>
	<p>Section 6.3.7 Tensing: Closing Done</p> <p>Specific Aim Explain <i>closing down</i>: a property of Tensing characterising disengagement from any utilisation of de Bono's tool, unless there is a requirement to utilise the tools in a work team context by someone with the authority to stipulate this requirement.</p>
	<p>Section 6.3.8 Bettering and the Continuation/Discontinuation of Tensing</p> <p>Specific Aim Explain the relationship between <i>mild-bettering</i> and the discontinuation of Tensing and the relationship between <i>strong-bettering</i> and the continuation of Tensing.</p>
	<p>Section 6.3.9 Tensing: Maturing Tooling and Taking-It-On</p> <p>Specific Aim Explain the relationship between <i>maturing tooling</i> as a dimension of Tooling and the demarcation of Enabling, as the third and final stage of <i>getting-on-the-same-page</i>, from Tensing as the second stage, when <i>taking-it-on</i> emerges.</p>

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6.4 GETTING-ON-THE-SAME-PAGE STAGE THREE: ENABLING	
<p>Overall Objective</p> <p>Explain in detail the properties of Enabling, the third stage of <i>getting-on-the-same-page</i>.</p>	<p>Section 6.4.1 Overview of Enabling</p> <p>Specific Aim Provide an overview of the theoretical hypotheses that constitute Enabling as the third stage of <i>getting-on-the-same-page</i>.</p>
	<p>Section 6.4.2 Enabling: Taking-It-On.</p> <p>Specific Aim Explain <i>taking-it-on</i>: a property of Enabling the commitment to help people, in the substantive area of business organisations, to utilise de Bono's tools.</p>
	<p>Section 6.4.3 Enabling: Tooled Strategising</p> <p>Specific Aim Explain <i>tooled strategising</i>: a property of Enabling characterising the proactive utilisation of de Bono's tools to strategically create and respond to opportunities to help people utilise de Bono's tools within the substantive area of business organisations.</p>
	<p>Section 6.4.4 Enabling: No-Wavering</p> <p>Specific Aim Explain <i>no-wavering</i>: a property of Enabling characterising the decisive maintaining of a preference for utilising de Bono's tools during work team occasions.</p>
	<p>Section 6.4.5 Enabling: Regulating</p> <p>Specific Aim Explain <i>regulating</i>: a property of Enabling characterising the self-instigated guidance of personal thinking when utilising de Bono's tools.</p>
	<p>Section 6.4.6 Enabling: Structuring</p> <p>Specific Aim Explain <i>structuring</i>: a property of Enabling characterising changes in cognitive capacity with the utilisation of de Bono's tools.</p>
	<p>Section 6.4.7 Enabling: Properties of Enabling and Perpetual Nuanced Tooling</p> <p>Specific Aim Provide a more detailed overview of the relationships between the properties of Enabling; explain the alignment of this detailed overview with the Enabling Hypothesis #3, presented in figure 6.16, Section 6.4.1 and explain the perpetual nature of the cognitive capability process of <i>getting-on-the-same-page</i>.</p>

CHAPTER SIX

GETTING ON-THE-SAME-PAGE CLASSIC GROUNDED THEORY

Introduction

This Thesis adheres to the classic Grounded Theory (GT) convention that a reader should be helped to know what to expect from a classic GT before the theory is presented in detail (Glaser 1978, 2009a). Chapter One therefore provided an overview of the core category, sub-core categories and other categories of the theory related to the core category and an integrated outline of the theory. As Holton and Walsh explain (2017, 212), a category is the abstraction of individual concepts as a latent pattern discovered in research data. The core category (core variable), is the core concept or ‘theoretical model’ that appears to explain how the main concern in the area under study is processed, managed or resolved, by elucidating a great deal of the variation in the way the main concern is addressed. The main concern being “the issue that emerges across the coded data as the prime motivator, interest, or problem in the research setting” (Holton and Walsh, 2019, 213). Also, other categories related to the core category are additional concepts that are linked to the core concept.

The overview provided in Chapter One also identified the research problem explored by the study presented in this Thesis, as the main concern of people who use Edward de Bono’s thinking tools within the substantive area of business organisations, particularly within the context of work team meetings, conversations and discussions. This particular context is referred to in this Thesis as work team occasions. Chapter Six will provide a more detailed explanation of the main concern of users of de Bono’s tools, and a more detailed write-up of the Getting On-The-Same-Page Theory than provided in Chapter One.

Write-up of The Getting On-The-Same-Page Theory in Chapter Six

The Getting On-The-Same-Page Theory is a multivariate theory resulting from the collection and analysis of research data using classic GT methodology. The application

of this methodology included initial open coding; constant comparison of empirical indicators; emergence of a core variable; delimiting and selective coding; theoretical sampling; theoretical saturation through interchangeability of indicators; conceptual memo writing and hand sorting memos by applying analytical rules and the emergence of theoretical codes to integrate the theory. As explained in Chapter Five, the ‘write-up’ as the last process associated with the development of a classic GT, is the outcome of many constantly refined drafts, while adhering to the classic GT dictum to “write conceptually” (Glaser 1978, 135).

The presentation of the Theory in this Chapter, therefore, adheres to classic GT convention that the write-up of a grounded theory is the presentation of a constructed modifiable theory, consisting of a set of integrated plausible grounded hypotheses, not research findings. Also, in accordance with classic GT tenets, no claim is made that these hypotheses are a collection of accurate facts and are therefore presented as statements that can be ‘checked out’ by others (Glaser 1978, Glaser and Holton 2004).

Because the Theory presented in this Chapter is the result of classic GT research, as prescribed by Glaser (1998, 2001, 2009a, 2019) the reader should assume all conceptual categories explicated in this Chapter are fully grounded; the write-up of the Theory will only consist of theoretical statements regarding concepts and the relationship between concepts, not descriptive statements about people; and a concept will only be illustrated by one or two indicators, these being suitably representative of many interchangeable indicators discovered in the research data from which the concept was generated. Lengthy indicators that are research participant quotes are labelled in accordance with the audit trail labelling system detailed in Figure 5.4 in Chapter Five. If the quote is only a few words however, it is italicised with quotation marks and no audit trail label.

The presentation of the Getting On-The-Same-Page Theory in this Chapter also follows guidelines provided by Glaser (1978, 128 - 143), regarding the write up of a classic GT for publication. This includes writing conceptually not descriptively, and therefore in a way that makes theoretical codes of a classic GT explicit. Glaser (1978, 137) also instructs a researcher to compare their theory with the work of others and “weave it into its place” in the theoretical and substantive literature. A researcher is

also expected to openly acknowledge the work of others, while retaining the originality of the concepts of their original GT that they have ensured works, fits, is relevant, and modifiable. Glaser (178, 137) maintains this should be done with footnotes which acknowledge the work of others while being as short as possible “so as not to derail a reader”. Following this classic GT practice, this Chapter integrates acknowledgement of extant literature with the write-up of the Getting On-the-Same-Page Theory. However, because this Theory is presented in a PhD business thesis not a sociological monograph, referencing and comparison with extant literature in this Chapter is also included in the body of the text rather than only using footnotes.

Chapter Six Structure

Section 6.1 explains the main concern of users of de Bono’s tools within the substantive area of business organisations. Section 6.1 also explains this concern is resolved with the processing of *getting-on-the-same-page*, through three stages (sub-core categories), these being Tooling-Up, Tensing and Enabling. Sections 6.2 provides an Overview of Tooling-Up, followed by a detailed explanation of each of the dimensions, elements, aspects and/or contexts of the properties of Tooling-Up. Section 6.2 also explains Tooling, a higher-order, sub-core category. Section 6.3 provides an Overview of Tensing followed by a detailed explanation of each of the dimensions, elements, aspects and/or contexts of the properties of Tensing. Section 6.4 provides an Overview of Enabling followed by a detailed explanation of the dimensions, elements, aspects and/or contexts of the properties of Enabling.

Glossary of Descriptions of Properties and List of Categories

A glossary of short descriptions of all dimensions, elements, aspects and/or contexts of the properties of Tooling-Up, Tensing and Enabling that are explicated in Sections 6.2 - 6.4, is provided in Appendix 4. A list of conceptual categories of the Getting On-The-Same-Page classic GT is provided in figure 6.1.

LIST OF GETTING ON-THE-SAME-PAGE THEORY CONCEPTUAL CATEGORIES

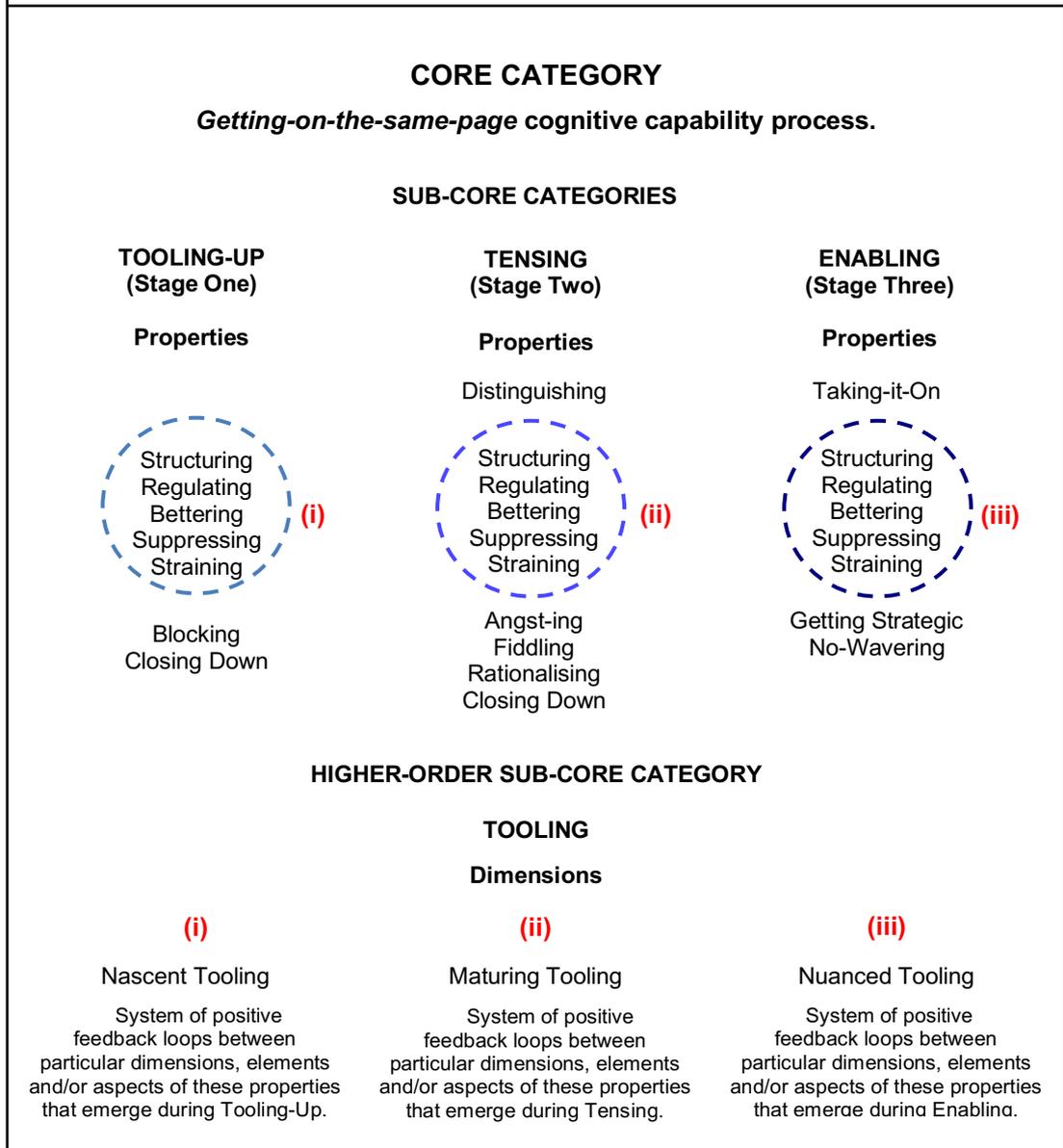


figure 6.1

List of Getting On-The-Same-Page Theory conceptual categories.

6.1 Main Concern of Users of de Bono's Tools in Business Organisations

In the very first interview, and subsequently in interviews throughout the study, “*on-the-same-page*” was a term consistently used by study participants as they recounted what happens when a work team utilises de Bono's tools during work team occasions, in comparison to when the tools are not utilised. Emerging during the late 1970s, ‘on the same page’ is a colloquial term commonly understood to variously mean to have agreement, to have broad agreement, to be in harmony without disagreement and to be in a harmonious working relationship²⁶. However, users of de Bono's tools, specifically and only, use the term “*on-the-same-page*” to differentiate a work team occasion when de Bono's tools are utilised, from one when the tools are not utilised. Therefore, for users of de Bono's tools, the meaning of this term has connotations which are additional to a work team being in harmony without disagreement.

Furthermore, when de Bono's tools are not utilised by a work team, users perceive a work team occasion as being disturbingly different, from one when the tools are utilised, as illustrated by the comment: “*a meeting without de Bono's tools is visibly and psychologically disjointed*” (P7-1: 86). More specifically users of de Bono's tools feel stressed, frustrated, concerned or at the very least annoyed, when they are involved in what they perceive as a work team occasion where “*no-one is on-the-same-page because no-one is using the tools*” (G2-1:42). The extent of this emotional discomfort is illustrated by the comment:

If everyone in my organisation used de Bono's tools it would be my dream world because I would never have to go into another meeting, with you know, a dreadful sinking feeling that I'm going to totally waste another hour of my life. P5-1:171

Therefore, the main concern of people who use Edward de Bono's thinking tools within the substantive area of business organisations, is the emotional stress they feel every time they perceive what they consider to be a major problem in business organisations. This problem being the types of cognitive interplay, during work team occasions they are involved with, that users of de Bono's perceive as only occurring

²⁶ Collins Dictionary 2020, accessed March 1, <https://www.collinsdictionary.com/dictionary/english/on-the-same-page>

because de Bono's tools are not being utilised and which indicate to them a work team is not-on-the-same-page. Cognitive interplay being a convenient term, devised during the write up of the Getting On-The-Same-Page Theory, to denote the complex interactive mix between personal cognition and concomitant overt behaviours that occur when one or more people engage in interpersonal communication during work team occasions. The term 'cognitive' meaning intellectual activity associated with thinking and the process of understanding, and the term 'behaviour' meaning how one acts or conducts oneself, especially towards others²⁷. In addition, to facilitate easier reading, the problem which emotionally stresses users of de Bono's tools each time they are involved with work teams that do not utilise de Bono's tools, is succinctly referred to in this Thesis as the 'not-on-the-same-page problem'.

6.1.1 Experiencing the Impact of The Not-On-The-Same-Page Problem

While meetings and other work team occasions are ubiquitous in the substantive area of business organisations, utilising de Bono's tools is not. Therefore, in addition to impacting significantly and negatively on their personal ability to be productive, a user feels the not-on-the-same-page problem negatively impacts on a work team's productivity, as illustrated by the comment:

When I was managing a business unit as well as doing face to face work with young people and having to balance that with proactive work, with networking, with meetings and all the time sitting around having pointless conversations and useless meetings, it gets really, really annoyingly difficult because it's a massive waste of time. With the tools it makes how we have conversations, meetings, any sort of conversation very effective, it stops it from, well from being a complete waste of time, and that's just plain unproductive. G6-2:42

Users of de Bono's tools also worry about the negative impact the not-on-the-same-page problem has on their organisation's overall productivity, and their role in perpetuating a problem which they perceive as "plaguing" business organisations per

²⁷ English Oxford Living Dictionaries 2019, accessed July 4, <https://english.oxforddictionaries.com/definition/cognitive>, Meriam-Webster Dictionary 2019, accessed July 4, <https://merriam-webster.com/dictionary/cognitive>, English Oxford Living Dictionaries 2019, accessed July 4, <https://english.oxforddictionaries.com/definition/behaviour>.

se. They also believe this problem would be alleviated if all work teams in business organisations utilised de Bono's tools, as illustrated by the comment:

I think if everyone in the Shire used the tools, I think it would be the best thing the Shire's ever done, I mean look what it did with our group and the communication even just for one example, if um, it was spread, if you could have the tools spread with everyone using them across the Shire, oh mate, what's the word, um ... it would be synergy. The synergy that would go on in this Shire would be unbelievable, so much more would get done, money saved, more work would be done efficiently, opinions would be listened to, advice would be as well, um, I think it would just lift everyone's feelings and we'd be all one, all one workforce. G5-P1:66-67

Successfully resolving their concern, about the emotional stress they feel each time they are involved with a work team that doesn't utilise de Bono's tools, does not however occur immediately a user is introduced to the tools. Firstly, this is because they have no experience utilising de Bono's tools either on their own or with others. Therefore, at the time they are introduced to the tools, they don't perceive the cognitive interplay during work team occasions when de Bono's tools are not utilised as being anything but normal, and what is to be expected during these occasions.

Secondly, before a user of de Bono's tools is able to resolve their main concern, specific changes need to occur in their cognitive ability that enable them to utilise de Bono's tools during work team occasions, without the help of anyone else. These changes only start occurring however when they start utilising de Bono's tools, after they have been introduced to the tools by a more knowledgeable other. A more knowledgeable other is defined in the area of cognitive education, as someone who has capability with a cognitive skill and guides a less capable person to develop that skill within the zone of proximal development, the zone of proximal development being the difference between what a learner can do with help from a more knowledgeable other and what they can do without help from a more knowledgeable other (Allal and Ducry 2000, Vygotsky 1978).

In the context of work teams utilising de Bono's tools, in the substantive area of business organisations, there are three kinds of more knowledgeable others. Firstly, an

authorised instructor delivering off-the-job de Bono authorised training for adult individuals and groups. Secondly, an external or internal group facilitator trained in the utilisation of de Bono's tools. Thirdly, someone involved with a work team, who has learned how to utilise de Bono's tools from a more knowledgeable other trained in the correct utilisation of these tools by groups and is capable of facilitating the work team's correct utilisation of the tools. As detailed in Section 3.2 in Chapter Three, the term 'correct utilisation' refers to utilising de Bono's tools in accordance with de Bono's authorised training programs.

6.1.2 Resolution of Users of de Bono's Tools Main Concern

Getting-on-the-same-page as the core category of the Getting On-The-Same-Page Theory is a process of change in cognitive capability. Temporally, this process commences when de Bono's tools are utilised after an introduction to the tools by a more knowledgeable other. Evolving over time which is relative to each individual user of de Bono's tools, it consists of three sequential, cumulative stages of change in cognitive capability, these being: Tooling-Up, Tensing and Enabling.

The Theory explains how the main concern of users of de Bono's tools, within the substantive area of business organisations, is resolved with this process of change in cognitive capability. As already implied however, a user's concern is only resolved when the sequential, cumulative stages of *getting-on-the-same-page* are uninterrupted. How long it takes for these stages to be fully processed by users of de Bono's tools varies however, because this is completely relative to each user.

The resolution of the main concern of people utilising Edward de Bono's tools, within business organisations, will now be covered in detail with an explanation of the three stages of the *getting-on-the-same-page* cognitive capability process.

6.2 Getting-On-The-Same-Page Stage One: Tooling-Up

The *getting-on-the-same-page* cognitive capability process commences with Tooling-Up. Tooling-Up temporally commences when an individual, within the substantive area of business organisations, starts utilising de Bono's tools after they have been introduced to the tools by a more knowledgeable other. The length of time it takes for a user to perceive the not-on-the-same-page problem, then successfully resolve their concern about being emotionally disturbed about this problem, is relative however to each person who starts utilising the tools. The resolution of a user's main concern is also dependent on their sustained utilisation of the tools, because this is how *getting-on-the-same-page* is successfully processed. Therefore, how long Tooling-Up occurs temporally, is also relative to each user.

This Section of Chapter Six explains the process of change in cognitive capability that temporally occurs from the time Tooling-Up commences, to the time Tensing commences as the second stage of *getting-on-the-same-page*. Prior to explicating Tooling-Up in detail however an Overview of Tooling-Up introduces the dimensions, elements and aspects of the properties of Tooling-Up, and the relationships between these, that emerge during this first stage of *getting-on-the-same-page*.

6.2.1 Overview of Tooling-Up

Structuring characterises changes in cognitive capability with the utilisation of de Bono's tools, after a prospective user has been introduced to the tools by a more knowledgeable other. Particular elements of *structuring* characterise particular changes in cognitive capability. These changes occur during three phases, these being *structuring new thinking*, which emerges during Tooling-Up; *structuring familiar thinking*, which emerges during Tensing and *structuring nuanced thinking*, which emerges during Enabling. The consistency of changes characterised with the particular elements of *structuring* during these phases is however highly variable. Five dimensions of *structuring* characterise this variability as different levels of consistency. The levels of consistency of particular changes in cognitive capability

that emerge with *structuring new thinking* during Tooling-Up are, *weakest structuring*, *weak structuring* and *moderate structuring*.

With *weakest structuring* change in cognitive capability when de Bono's tools are utilised, is always inconsistent and therefore unstable. With *weak structuring* change is sometimes consistent and therefore sometimes stable and with *moderate structuring* change, in cognitive capability when de Bono's tools are used, is always consistent and therefore always stable.

Structuring, Bettering, Suppressing and Straining during Tooling-Up

When a user of de Bono's tools is introduced to the tools, by a more knowledgeable other, *bettering* is activated. *Bettering* is the disposition a prospective user or user of de Bono's tools has towards learning. Three dimensions of *bettering* characterise the strength of a prospective user or user's disposition. With *no bettering* the strength of a prospective user or user's disposition towards learning is underpinned by a belief that there is no need to learn anything new and different from what is already known, experienced, or feels comfortable. With *mild bettering* the strength of a prospective user or user's disposition towards learning is underpinned by a belief learning is useful until it gets too difficult to justify the effort it requires. With *strong bettering* the strength of a prospective user or user's disposition towards learning is underpinned by an unwavering belief that making an effort to learn is always necessary and valuable.

When either *mild bettering* or *strong bettering* is activated at the time a more knowledgeable other introduces a user to de Bono's tools, this causes *robust suppressing*. *Suppressing* is self-induced tempering of *straining*, *straining* being the confluence of emotional discomfort and utilisation of de Bono's tools. With *robust suppressing*, there is effective self-induced tempering of *straining*. *Robust suppressing* therefore causes *minimum straining*. With *minimum straining* the level of emotional discomfort experienced with the utilisation of de Bono's tools never hinders a user's utilisation of the tools. When *minimum straining* is caused by *robust suppressing* at the time a user is introduced to de Bono's tools, this causes *weakest structuring*, as depicted with Tooling-Up Hypothesis #1, figure 6.2.

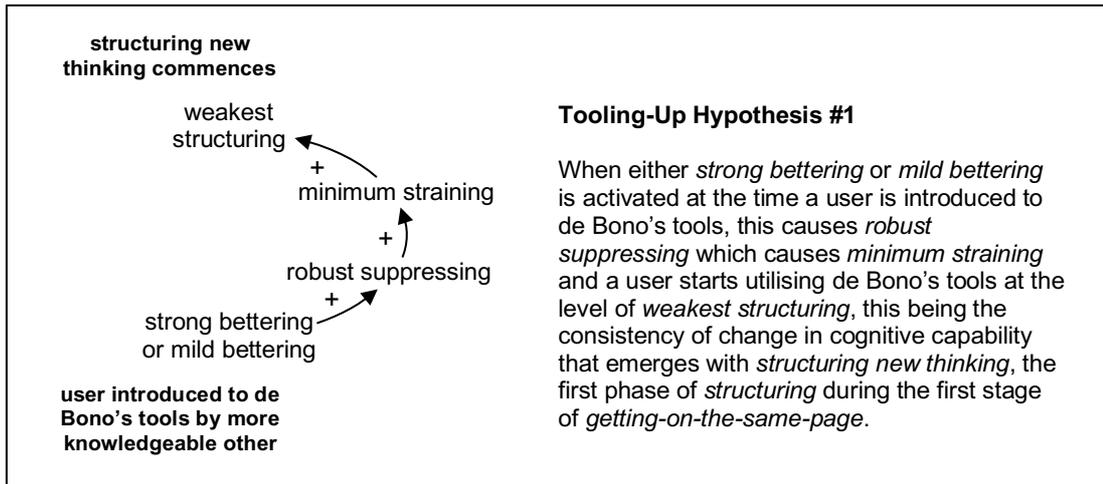


figure 6.2
Tooling-Up: Hypothesis #1.

Weakest structuring causes the continuation of both *weak bettering* and *strong bettering*; this causes more *robust suppressing* which causes *minimum straining* to continue and this causes *weakest structuring* to continue. When the causal relationships between *structuring*, *bettering*, *suppressing* and *straining* are sustained this causes *weakest structuring* to transition to *weak structuring*. Furthermore, when a reinforcing feedback loop between *mild bettering* or *strong bettering*, *robust suppressing*, *minimum straining* and *weak structuring* continues unabated, *weak structuring* transitions to *moderate structuring*. The reinforcing feedback loop between *strong bettering* or *mild bettering*; *robust suppressing*; *minimum straining* and *moderate structuring*, is depicted with Tooling-Up Hypothesis #2, figure 6.3.

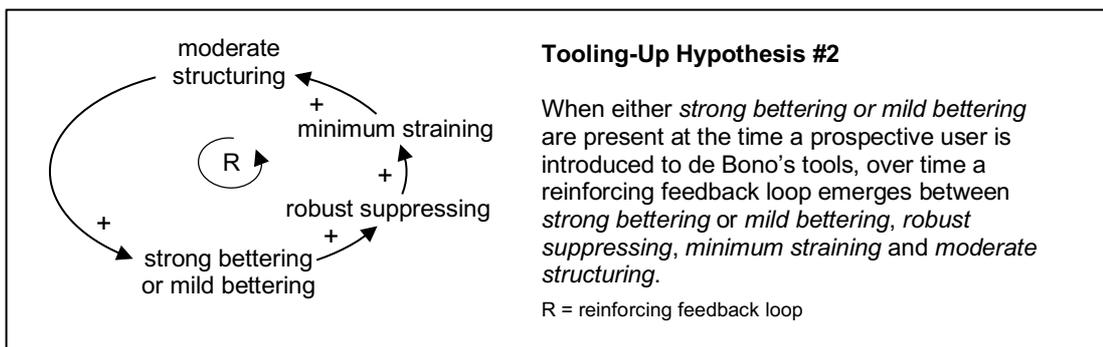


figure 6.3
Tooling-Up: Hypothesis #2.

Structuring and Regulating

When the reinforcing feedback loop between *mild bettering* or *strong bettering*; *robust suppressing*; *minimum straining* and *moderate structuring* continues unabated, this causes more *moderate structuring*, which causes *mild regulating*. *Regulating* is the self-instigated guidance of their thinking by a user of de Bono's tools at times when they utilise the tools. With *mild regulating* self-initiated guidance of their thinking by a user of de Bono's tools when they utilise the tools is mostly unconscious, however *mild regulating* causes more *moderate structuring* and this causes the self-reinforcing feed-back loop between *moderate structuring*, *strong bettering* or *mild bettering*, *robust suppressing* and *minimum straining* to continue. Over time this causes the transition of *mild regulating* to *moderate regulating*. With *moderate regulating* the self-initiated guidance of their thinking by a user of de Bono's tools, when they utilise the tools, is always conscious. When the relationship between *moderate regulating* and *moderate structuring* continues unabated, this causes a second reinforcing feedback loop as depicted with Tooling-Up: Hypothesis #3, figure 6.4.

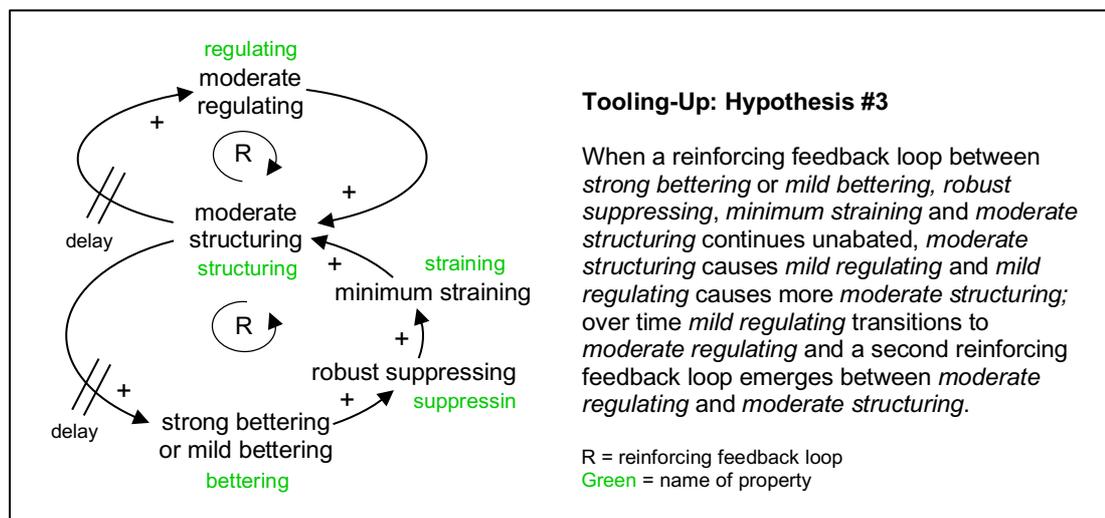


figure 6.4

Tooling-Up: Hypothesis #3.

Tooling and Nascent Tooling

Tooling is a higher-order property of *getting-on-the-same-page*, as the core category of the Getting On-The-Same-Page Theory. Tooling is theoretically conceptualised as an emergent system of reinforcing (positive) feedback loops between particular dimensions of *structuring*, *regulating*, *bettering*, *suppressing* and *straining*, as lower-

order properties of each stage of *getting-on-the-same-page*. This system of causal relationships is dynamic, therefore when it is not disrupted the particular dimensions of each of these lower-order properties transition over time. *Nascent tooling* is the first dimension of Tooling and emerges during Tooling-Up as the configuration of causal relationships between *moderate structuring*, *moderate regulating*, *mild bettering* or *strong bettering*, *robust suppressing* and *minimum straining*, as depicted in figure 6.4. When *nascent tooling* is unabated during Tooling-Up, sustained *robust suppressing* becomes a tipping point which causes *distinguishing*. When *distinguishing* occurs Tensing commences, as depicted with Tooling-up Hypothesis #4, figure 6.5.

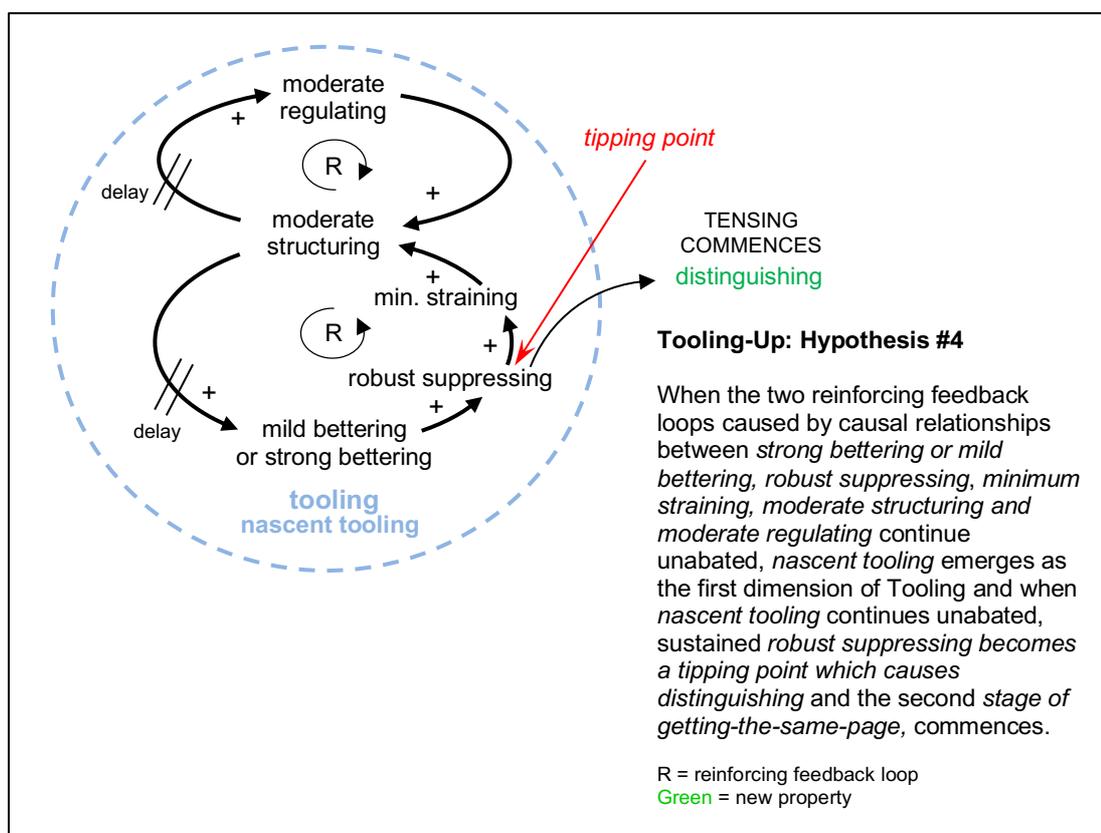


figure 6.5
Tooling-Up: Hypothesis #4.

Mild Bettering and Diminishing Suppressing

After being introduced to the tools, when a prospective user or user of de Bono's tools utilises the tools, what constitutes 'minimum' or 'maximum' *straining*, 'frail' or 'robust' *suppressing*; 'mild' or 'strong' *bettering*, is relative to each user. Therefore, when *mild bettering* is activated at the time a user is introduced to de Bono's tools, this can cause *frail suppressing* rather than *robust suppressing*. With *frail suppressing*

there is ineffective self-induced tempering of *straining*, this causes *maximum straining*, rather than *minimum straining*. Over time this causes more *weakest structuring*, rather than *weakest structuring* transitioning to *weak structuring*. *Weakest structuring* causes *weak regulating* and over time a reinforcing feedback loop emerges between *weakest structuring* and *weak regulating*. This causes an increase in *mild bettering*, which causes more *frail suppressing*, which causes more *maximum straining*. Over time this causes a second reinforcing feedback loop to emerge between *maximum straining*, *weakest structuring*, *weak bettering* and *frail suppressing*, rather than *nascent tooling* emerging as a system of reinforcing feedback loops between *moderate structuring*, *moderate regulating*, *mild bettering*, *minimum straining* and *robust suppressing*.

Unabated *frail suppressing* transitions to *nil suppressing*. With *nil suppressing* there is no self-induced tempering of *straining*, furthermore sustained *nil suppressing* becomes a tipping point which causes *closing down*. *Closing down* is disengaging from any utilisation of de Bono's tools, unless there is a requirement to utilise the tools in a work team context by someone who has the authority to stipulate this requirement. Therefore, with *closing down* Tooling-up ceases, as depicted with Tooling-Up: Hypothesis #5, in figure 6.6.

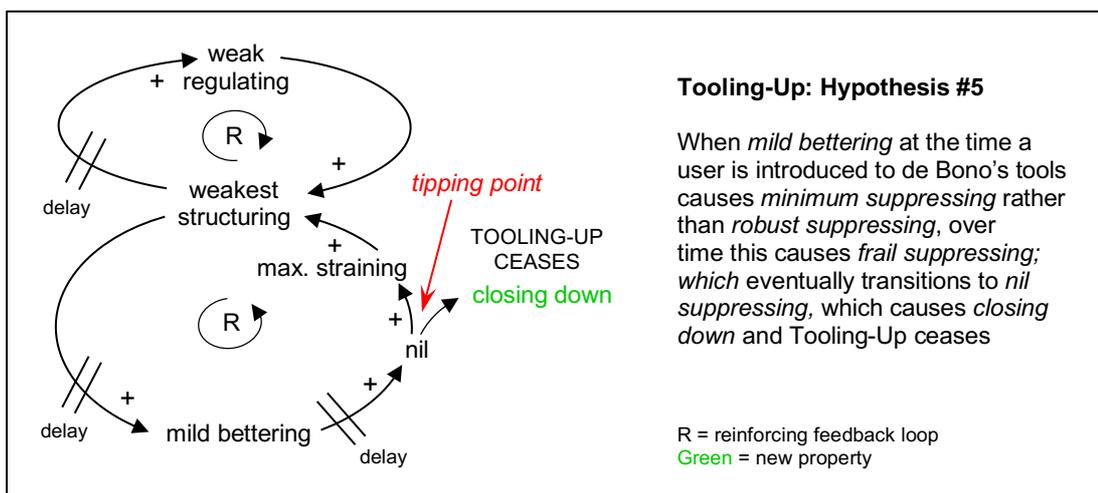


figure 6.6
Tooling-Up: Hypothesis #5.

No-Bettering and Blocking

When *no-bettering* is present rather than *mild bettering* or *strong bettering*, at the time a prospective user is introduced to de Bono's tools by a more knowledgeable other, this causes *maximum straining*, which causes *nil suppressing*, and this causes *blocking*. *Blocking* is intentional non-utilisation of de Bono's tools when being introduced to the tools. With *blocking* a prospective user stonewalls a more knowledgeable other's efforts to help them utilise the tools and therefore *getting-on-the-same-page* never commences, as depicted with Tooling-Up: Hypothesis #6, figure 6.7.

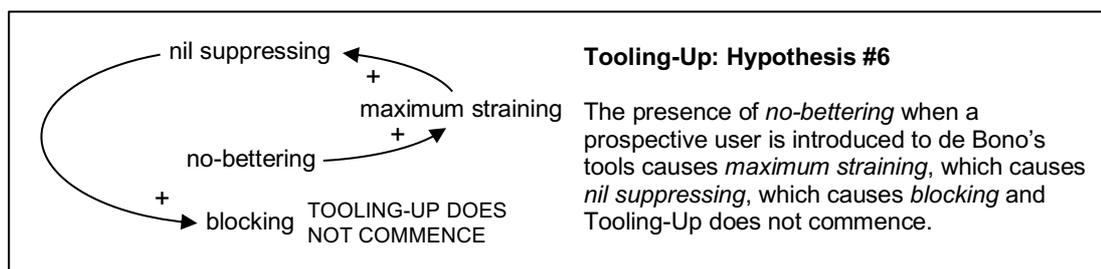


figure 6.7

Tooling-Up: Hypothesis #6.

The Overview of Tooling-Up has introduced the dimensions, elements and/or aspects of the properties of Tooling-Up and the relationships between these. These properties will now be explained in detail.

6.2.2 Blocking

Blocking is intentional non-utilisation of de Bono's tools when being introduced to the tools.

With *blocking* a prospective user's stonewalling of a more knowledgeable other's efforts to help them utilise the tools can manifest in various ways. This includes being overtly disinterested; being overtly analytical about the purpose of the tools rather than attempting to utilise them, or being overtly critical about de Bono's tools or de Bono's work per se, as illustrated by a comment from a manager who, as a more knowledgeable other, has introduced de Bono's tools to many work teams:

Edward de Bono has been around for so long that a lot of people who were familiar with de Bono in the eighties, seem to think his work, the tools, are not relevant now because maybe there is other stuff around, so they are sceptical and say What's so good about that? Why are you using that? Isn't that old hat? I think they use that sort of critical stance as an excuse to not find out what they can learn, they just don't want to learn anything new and that's certainly been my experience in my last two organisations. P1-1:42

Regardless of how *blocking* manifests however, a prospective user's conscious or unconscious decision to not engage in any learning associated with the utilisation of de Bono's tools, prevents any change in cognitive capability because they close off from any opportunity to change in any way. This self-initiated closing-off from the opportunity to personally change by learning, is illustrated by a comment from a manager of a business unit who attended a de Bono authorised training program with members of her unit, all of whom were then expected to use the tools during work team occasions and with their everyday work:

I've got these people who are very open to it and excited and really engaging with it and they were like that right from the start at training and I've got these people who just aren't, 'cos they have no interest whatsoever and I sort of picked that up when we were all training, there's no application of anything from when they were supposed to be training and when I put back to them, like in an email, What are you thinking about? Or ask them which tools are you using? There's just, well, nothing, nup, there's complete avoidance and that happens in meetings as well, totally nothing. G1-1:20

As already indicated, *blocking* is specific to Tooling-Up and therefore does not occur during any other stages of the *getting-on-the-same-page* process. Further to this, *blocking* emerges because *no bettering* rather than *mild bettering* or *strong bettering* is present when a prospective user is introduced to de Bono's tools. With *no bettering* at the time a prospective user is introduced to de Bono's tools, they believe there is no need to learn anything new and different from what they already know or have experienced. Therefore, when *no-bettering* is present at the time a prospective user is introduced to de Bono's tools, this causes *maximum straining*, the level of discomfort

which always stops a prospective user from utilising de Bono's tools with their thinking and which therefore causes *nil suppressing*.

With *nil suppressing* there is no self-induced tempering of *straining*. A user makes no attempt to temper any discomfort they are feeling at the time they are introduced to de Bono's tools and this causes *blocking* and *getting-on-the-same-page* doesn't get started. While the presence of *no-bettering*, when a prospective user is introduced to de Bono's tools, eventually causes *nil suppressing*, which causes *blocking* and the immediate termination of *getting-on-the-same-page* before it starts, when *strong bettering* or *mild bettering* causes *robust suppressing*, this causes *minimum straining* and this causes *structuring* rather than *blocking*, therefore Tooling-Up commences.

6.2.3 Structuring

Structuring is changes in cognitive capability with the utilisation of de Bono's tools. *Structuring* occurs after a prospective user has been introduced to the tools by a more knowledgeable other and consists of three sequential phases. These phrases are *structuring new thinking* which emerges during Tooling-Up; *structuring familiar thinking* which emerges during Tensing and *structuring nuanced thinking* which emerges during Enabling. Furthermore, particular changes in cognitive capability are characterised with particular elements of *structuring*, these being *cognitive languaging*, *cognitive disciplining*, *cognitive focusing*, *cognitive levelling* and *cognitive listening*. However, the consistency and therefore the stability of change characterised with these particular elements of *structuring* is highly variable.

This variability is characterised with five dimensions of *structuring*, these being *weakest structuring*, *weak structuring*, *moderate structuring*, *strong structuring* and *robust structuring*. *Weakest structuring*, *weak structuring* and *moderate structuring* characterise the consistency of change occurring during Tooling-up, *moderate structuring* and *strong structuring* characterise the consistency of change during Tensing and *robust structuring* characterises the consistency of change in cognitive capability during Enabling. The changes in cognitive capability caused by *structuring*, also occur within several cognitive/relational contexts, these being *in-mind*, *in-mind-in-relationship*, *in-mind-in-enabling* and *in-mind-in-facilitation*. The phases and

dimensions of *structuring* relative to each stage of *getting-on-the-same-page* and the elements and aspects and contexts of *structuring* relative to all or some of these stages are listed in figure 6.8.

STRUCTURING: PHASES, DIMENSIONS, ELEMENTS, ASPECTS, CONTEXTS						
Phases and Dimensions of Structuring Relative to each Stage of Getting-On-The-Same-Page						
STAGES						
TOOLING-UP		TENSING			ENABLING	
PHASES						
Structuring New Thinking		Structuring Familiar Thinking			Structuring Nuanced Thinking	
DIMENSIONS						
Weakest Structuring	Weak Structuring	Moderate Structuring	Strong structuring	Robust Structuring		
Elements, Aspects, Contexts of Structuring Relative to all or some Stages of Getting-On-The-Same-Page						
ELEMENTS						
Cognitive Languaging		Cognitive Disciplining		Cognitive Focusing	Cognitive Levelling	Cognitive Listening
ASPECTS						
Languaging General Thinking	Languaging Operational Thinking	no aspects	no aspects	Interactive Forwarding	Collective Directioning	Cognitive Levelling
CONTEXT: THINKING SPACE – DIMENSIONS:						
In-Mind	nabe-Relationship		In-Mind-In-Enabling		In-Mind-In-Facilitation	

figure 6.8

Structuring: Phases, Dimensions, Elements, Aspects, Contexts.

(1) Structuring New Thinking: The First Phase of Structuring

Structuring new thinking, as the first phase of *structuring*, emerges immediately de Bono’s tools are utilised.

The term ‘new thinking’ is appropriate for this initial phase of *structuring* because it fits with the experience of users. As explained in Section 6.1.1, prior to being introduced to the tools, a user knows very little or nothing about de Bono’s tools. Therefore, as soon as they start utilising the tools, a user perceives this as being very different to the normal way they think, as illustrated by the comment:

These tools are different to what you're used to, de Bono's tools have their own sort of logic, it has its own very distinctive style and language and ways of thinking and asks you to think in that way, not like other styles of thinking, but to concentrate and think differently, well you have to because the tools, the tools are different from usual thinking, it's different, it's new thinking. G4-2:50

Structuring new thinking is a completely new experience for users of de Bono's tools. This is because changes caused by *cognitive languaging*, *cognitive disciplining*, *cognitive focusing* and *cognitive levelling*, as particular elements of *structuring* that first emerge with *structuring new thinking* during Tooling-Up, are only experienced by a user when they start utilising the tools. How long it takes for these changes to emerge is relative however to each user and when each user is introduced to the tools.

If a user is introduced to the tools during a de Bono authorised training program changes characterised with *cognitive languaging*, *cognitive disciplining*, *cognitive focusing* and *cognitive levelling* are experienced as emerging sequentially, over the duration of the program. Whereas, if a prospective user is introduced to the tools by a more knowledgeable other during an on-the-job work team occasion, changes characterised with these elements of *structuring* are experienced almost simultaneously. In addition, changes characterised with *cognitive levelling* are only experienced as occurring temporally when a user utilises de Bono's tools with one or more other people, whereas changes characterised with *cognitive languaging*, *cognitive disciplining* and *cognitive focusing* are experienced as occurring at all times when a user utilises the tools, regardless of whether they are doing this on their own or with one or more other people who are also utilising the tools.

(2) The Elements of Structuring

Specific changes in cognitive capability, when de Bono's tools are utilised, are characterised by particular elements of *structuring*, these being *cognitive languaging*, *cognitive disciplining*, *cognitive focusing* and *cognitive levelling*. This Section will explain the specific cognitive capability changes characterised by these elements of *structuring new thinking phase* of *structuring* during Tooling-Up.

a. *Cognitive Linguaging*

Cognitive languaging is changes with the lexicon of personal thinking when utilising de Bono's tools.

Prior to using de Bono's tools, a user is not tacitly aware of terms and phrases they use, either habitually or occasionally to express what thinking they are doing. However, when they start utilising the tools a user experiences a change from only tacitly expressing what thinking they are undertaking at any point in time, to using a consciously expressed lexicon at times when they utilise de Bono's tools, as illustrated by the comment:

I think one thing that Edward de Bono has been very good at is naming his tools and having an explicit language you have to use. When I use so-called other tools, it isn't explicit enough, I'm trying to think of one of them and I can't think of one of them, none of them had names and that's the difficulty. Not like the PoP tools for instance, I know exactly what I'm doing with my thinking, I'm using the name of the tool I'm using like CAF or OPV, PMI etc, that's essential for your thinking, um explicitly using the language that's specific to these tools. P3-1:58

Further to experiencing a change in their awareness about the language they use to express their thinking, users of de Bono's tools experience a particular change in a how they express their general thinking when they utilise de Bono's tools. This change is characterised with *languaging general thinking*, a particular aspect of *cognitive languaging*. They also experience a particular change in their expression of specific thinking when they utilise a single de Bono tool. This change is characterised with *languaging operational thinking*, also a particular aspect of *cognitive languaging*.

Cognitive Linguaging: Languaging General Thinking

Languaging general thinking is changes with the lexicon of personal general thinking when utilising de Bono's tools.

With *linguaging general thinking* a user of de Bono's tools changes from being mostly inarticulate about the general modes of thinking they are using to being more explicit. Examples of general modes of thinking being problem-solving, decision making, evaluating and creating ideas. This change in cognitive capability is illustrated by the comment:

I've developed a meta-language since using de Bono's tools. I have a language to think about the process of my thinking, it's not like the language or um, the words you're using for doing a job, it's the language of how do I think about this job? How do I approach it with my thinking? Am I solving a problem or doing some other kind of thinking. P2-1:25

Linguaging General Thinking and Extant Literature

The discovery of *linguaging general thinking*, is consistent with the cognitive education interpretation of 'the language of thought'. The 'language of thought hypothesis' originally emerged within the domain of philosophy over several centuries, until it became less significant in the 1600s, then revived in the 1970s within the narrower fields of philosophy of the mind and cognitive science (Kaye 1995, Rescoria 2019). Within these fields, the language of thought hypothesis describes mental activity in the brain as a form of language, referred to as 'mentalise' (Fodor 2008, Rescoria 2019, Maloney 1984). The discovery of *linguaging general thinking*, appears to be particularly consistent however with the more general, regulative functions of the language of thought, as proposed within the domain of cognitive education (Costa and Kallick 2000, Perkins 1992, Tishman and Perkins 1997).

While there is still considerable debate regarding the existence and nature of mentalise within the fields of philosophy of the mind and cognitive science, this construct has been adopted and further developed within the field of cognitive education as the 'language of thinking', a term synonymous with language of thought (Costa and Kallick 2000, Costa and Marzano 2001, Tishman and Perkins 1997). Within this field Tishman, Perkins and Jay (1995, 7) maintain the language of thinking is firstly, the words in a language that refer to mental processes and mental products and secondly, words that describe and evoke thinking. Perkins (1992, 110) points out the language

of thinking is not restricted to thinking in one's mind, it extends to 'downloading' one's thinking into a visual form with written words or conceptual diagrams.

Tishman and Perkins (1997, 371) also maintain the language of thinking not only helps individuals communicate with others, it also shapes and regulates thought by providing guiding concepts, with this regulative function including thinking dispositions, these being a tendency towards particular patterns of intellectual behaviour, such as the tendency to be reflective, intellectually strategic or intellectually adventurous. These regulative functions are also referred to as habits of mind, by Perkins and Tishman (1997, 372) and more particularly Costa and Kallick (2000, 17), who propose sixteen habits of mind, which include communicating with clarity and precision. The discovery of *language-ing general thinking* as an aspect of *cognitive language-ing* is also consistent with the regulative functions of the language of thought as proposed by Perkins (1992, 107), Perkins and Tishman (1997, 372) and Costa and Kallick (2000, 17), as illustrated by a comment from a user of de Bono's tools:

You're always labelling your different modes of thinking, you place a label on this type of thinking and that type of thinking and that means it's externalising and expressing various processes that go on in your brain, so you know what's going on with your thinking, using the proper language for your thinking and talking this language with other people. P2-1:29

Cognitive Linguaging: Linguaging Operational Thinking

Linguaging operational thinking is changes with the lexicon of personal thinking while utilising a single de Bono tool.

With *linguaging operational thinking* a user of de Bono's becomes explicit with the lexicon they adopt while utilising a single de Bono tool. This change is associated with them engaging in operacy each time they utilise a de Bono tool. Operacy being a construct created by Edward de Bono which means the integration of thinking with practical action, in a similar way that 'numeracy' means the skill of actively working with numbers, and 'literacy' means the skilled actions of reading and writing (de Bono 1990b, 1992d, 1997b, 2009d). Perkins (1995, 193) explains operacy as a construct

uniquely devised by de Bono and that de Bono's tools are "designed for improving thinking in practical everyday life" because these tools involve the active process of 'doing' thinking, the cognitive activity involved with, for example, making decisions and therefore not a passive phenomenon.

With *linguaging operational thinking* a user stops abstractly describing the functions of a de Bono tool and articulates (either silently or out loud) the lexicon associated with the tool while utilising it, as illustrated by the comment:

With the Six Thinking Hats I've had to build the skill of thinking and um talking in the language at the same time, the names and the language of what all the Hats are that I'm using, then I'm really using them to actively think about things, not well, just talking about the Hats, but actually going about my thinking with a problem or something, while I'm actually using the Hat that's appropriate for that and the name and the language of that Hat. P7-1:17

Linguaging Operational Thinking and Extant Literature

There appears to be a paucity of awareness within the fields of philosophy of mind and cognitive education, regarding de Bono's thinking tools being specifically designed for 'operacy'. Tishman and Perkins (1997, 372) do consider however, that in addition to regulative functions corresponding to a general language of thinking, there are dialectic aspects of thinking situated within and only relevant to particular fields of activity, for example the language of thinking used by physicists, mathematicians, computer scientists or lawyers, only being relative to the fields within their fields. Nevertheless, this construct of the 'dialects of thinking', only accounts for the adoption of a language of thinking that serves specialised styles of enquiry, it does not account for the adoption of a cognitive-based lexicon particularly associated with the utilisation of thinking tools specifically designed for practical everyday thinking, as with the discovery of *linguaging operational thinking*.

b. *Cognitive Disciplining*

Cognitive disciplining is changes with the orderliness of personal thinking when utilising de Bono's tools.

With *cognitive disciplining*, when they utilise de Bono's tools, a user experiences a shift from never consciously being disciplined with their thinking about issues, to thinking about issues in a restrained and prescribed way. Prior to being introduced to the tools, users are not accustomed to being disciplined with their thinking, because normally there is no expectation, particularly during work team occasions, that they or anyone else involved will intentionally restrict their thinking to a prescribed and meticulous process, while using particular thinking tools specifically designed for practical everyday thinking. With the utilisation of de Bono's tools however, they experience a change from being, what one user described as "*free-wheeling with my thinking*", to being disciplined and orderly with their thinking when they utilise the tools, as illustrated with the comment:

It (using the tools) is done deliberately, you know I go through all the steps, I'm very aware of all the thinking steps I might have to go through using a tool to, you know, deal with the problem or whatever I'm thinking about and I constantly stick with them, I don't waver, it's deliberate, nothing's careless about it. G1-3:45

With *cognitive disciplining* change in the orderliness of their thinking is experienced by users of de Bono's tools immediately they are introduced to the tools by a more knowledgeable other. This is because, to utilise each tool correctly, they are expected to follow instructions for the utilisation of the tool. An example of the type of procedures users of de Bono's tools are expected to follow, are the specific instructions provided by de Bono (2009b, 40) for utilisation of the P.M.I. (Pluses, Minuses, Interestings) thinking tool, in the *Power of Perception™ Ten Tools for Making Better Business Decisions* training manual:

When doing a P.M.I. set out to look in the Plus direction until you have exhausted your search. Then set out to look in the Minus direction and see everything you can see. Finally set out in the Interesting direction. It is totally wrong to list all kinds of points and then sort them one by one into

the correct boxes. This would be judgement classification not attention directing.

The fundamental principles associated with the use of each tool designed by de Bono, provided in de Bono's authorised training manuals, are also prescribed by a more knowledgeable other when a user is introduced to the tools outside the context of off-the-job training. Therefore, all users of de Bono's tools are expected to curb their normally free-wheeling thinking habits and align their utilisation of a de Bono tool with the procedures prescribed for using each tool. This significant change to a user's normally free-wheeling thinking habits is illustrated by the comment:

You really have to do your thinking with the steps one at a time with rules, following the rules for the tools, that's what makes them tools, if they were just a name of a thing they wouldn't be a tool, like you know you couldn't just draw a picture of a hammer, it's not a hammer, it's just a picture of a hammer, a hammer is an actual thing that you have to use, it's a thing that has rules of engagement and with the tools you have to concentrate and play by those rules right away. P1-1:44

c. Cognitive Focusing

Cognitive focusing is changes with personal cognitive intent when utilising de Bono's Purpose Focus tool.

When a user is introduced to de Bono's tools, this includes being introduced to at least the Purpose Focus tool, this being one of two de Bono Focus tools, the other being the Area Focus tool. Both of these tools are integral to all de Bono tool sets for utilisation by adults in a group setting and therefore, also during work team occasions (de Bono 2009a, 2009b, 2009e). The Area Focus tool is for a thinker to focus on 'where' they can generate new ideas, for no other reason than to have new ideas in that area. The Purpose Focus tool is for a thinker to focus on what they want to achieve with their thinking, when they want or need to deal with any kind of issue ranging from simple to complicated problems (de Bono, 1992b, 2009a, Lyons and de Bono 2003).

When they are specifically introduced to de Bono's Purpose Focus tool, a user has to concentrate on the purpose of their thinking about the issue they are trying to deal with rather than fixating on analysing, dissecting or musing about the issue per se. With this shift in how a user cognitively concentrates on issues, they start referring to the outcome from utilising this particular tool as "my purpose focus", "my focus", "our focus" or "the focus". They also distinguish this outcome, as being significantly different from the type of focusing they did before they were introduced to de Bono's tools, as illustrated by the comment:

Purpose focus is much more rigorous than I would have, have worked, operated before. Certainly for me I like to know what I'm doing, and why I'm doing it, because that's me, but I could honestly say that if you'd asked me before I started using de Bono's thinking tools, if you'd asked me to tell you what I was doing and why I was doing it with my thinking at any given time, I could not have given you a Purpose Focus, a focus for my thinking, Purpose focus is a much more rigorous and structured focus, actually it's an altogether different kind of focus, which really directs your thinking better than I ever have done before. I mean, I've always been the sort of person if I have a particular job I like to get it done, I'm not satisfied until I've done whatever it is I have set out to focus on, but it was so much, so much about just paying attention to the activity of it all before the tools and certainly, before the Purpose Focus tool. To really focus on what you have to achieve with your thinking not the activity of what you're doing, to me that's Purpose Focus, that's what you're thinking about and how to think about it and that separates your thinking out from action, it's the foundation for all your thinking, about everything you have to think about. G1-2:161-162

When *cognitive focusing* emerges during the *structuring new thinking* phase of *structuring*, a user also starts to perceive their ability to define 'a Purpose Focus' for their thinking as a necessary capability that enables them to be a better thinker about issues they need or want to deal with, as illustrated by the comment:

When you are thinking with de Bono's tools you have to set what you want to get out of it, what the focus is, your Purpose Focus, this stops you trying to solve four hundred different problems that come up when you are thinking, you focus only, only on the

focus you've now got for your thinking, it stops you going down all these little rabbit holes with your thinking. G8-2:4

With *cognitive focusing* a user of de Bono's tools also experiences a particular shift in the way they deal with an issue when they use de Bono's Purpose Focus tool. This is a shift from being issue centric, described by one user as "*totally immersed in a problem, not seeing the wood from the trees*", to concentrating on determining the objective for their thinking about an issue they are trying to deal with. Therefore, when *cognitive focusing* emerges during Tooling-Up a user starts getting very cognisant of the purpose for their thinking about an issue, regardless of what the issue is about and regardless of whether it is simple or highly complicated. They stop being issue or topic-centric with an extensive fixation on "*unpicking an issue*". They also stop being solution-centric and hastily jumping to a solution as soon as they start contemplating an issue, as illustrated by the comment:

Before I started using the tool, I found that often my mind would race a thousand miles in all different directions to try and find solutions, I never used to sit down and think about actually Ok what is it I'm trying to achieve with my thinking?, now getting a focus and the Purpose Focus tool is so important, that's the first thing I look at, Ok what's my focus here?, so that's where I start and yep then you know, Is it a broad focus? Am I doing a broad focus? I'm practising, making myself stay focused on getting a clear goal for my thinking with a problem or whatever I need to handle, not going off into paralysis by analysis. G1-3:33-35

With *cognitive focusing*, in addition to a user of de Bono's tools experience a change in how they think about an issue they have to deal with, they stop what users have described as resolving a problem by "*ping-ponging around with my thinking*"; "*always defaulting to brainstorming*" and "*just chucking out ideas*". To achieve the thinking they want or need to do about an issue, a user gets used to selecting then utilising a specific tool or sequence of de Bono's tools, without wavering from their Purpose Focus while undertaking the thinking they want to do about the issue, as illustrated by the comment:

I spend a lot of time in the Hats framework and using the PoP tools and then eventually I go to Lateral Thinking tools because generally I have to generate lots of ideas to solve my problems, so the Hats lead me to this, and PoP leads me to that, and bang then I'm off and running straight away in the right direction with everything I have to think about. But look, I understand the purpose of what I'm trying to think about with all this, that's the real starting point. That's, that's the first, box in the race. So, you've got to know what you're thinking about, what you're trying to achieve with your thinking here. So, to me the Focus, you've gotta get Focus, we all need Focus and it's, of course Purpose Focus, generally Purpose Focus, Area Focus not so much for me. I work with Purpose Focus most of the time with everything I do, Area every now and again. So that, that's the starting point really, get my Purpose Focus right, really defined and then I have to choose exactly the right Hats, the right PoP tools, the right Lat tools to use, to stay on track with what my Purpose Focus is telling me I have to achieve, achieve with my thinking about whatever it is I'm trying to deal with. P1-1:137-140

Therefore, with *cognitive focusing* the change a user of de Bono's tools experiences with their ability to be clear and precise about their cognitive intent, when they utilise de Bono's Purpose Focus tool, is significant. This change, is illustrated by the comment:

Instead of running around in my head catastrophising things, I approach it with a structure, I'm approaching whatever it's about, like a problem, with a structure, in a specific way, right from the start with a Purpose Focus. This is a massive change to the way I used to think, I decide to get a Purpose Focus, I go 'right, that's the problem I have to solve, these are the steps I have to take to do that', these are the tools one after another to do that and I use them like that. Massive change. G6-2: 60

d. Cognitive Levelling

Cognitive levelling is changes with personal cognitive modus operandi when utilising de Bono's tools during a work team occasion.

Adopting Parallel Thinking is intrinsic to correctly using de Bono's thinking tools in a group context (de Bono 1994, 1997a, 1999a 1999c, 1999e). Therefore, when users of de Bono's tools utilise the tools during work team occasions they need to adhere to the rules of Parallel Thinking, fundamentally this means, everyone utilise the same de Bono tool at the same time.

As explained in Chapter Three, Section 3.2.2, Parallel Thinking is unique to de Bono's methodologies hence, prior to being introduced to de Bono's tools, a user is completely unfamiliar with this way of thinking when they are interacting with other people. Therefore, with *cognitive levelling* a user experiences a significant change in their personal cognitive modus operandi during work team occasions when they utilise de Bono's tools. They experience their thinking shifting from being un-synchronised to getting completely synchronised with the thinking of others, as illustrated by the comment:

The de Bono's tools are quite unique in many respects, I haven't seen too many approaches, none really, which force you to truly change your approach when you're thinking with other people. I had to move out of the standard way of interacting, to thinking and looking at things in tandem with other people because we're having to do Parallel Thinking and that's me using the same tool as everyone else, at the same time, that's what I mean by tandem, being in tandem with everyone. You're obviously not all thinking the same thing as each other, but you're using the same tool, you're thinking about the same thing as everyone else, at the same time, in parallel with each other, not all over the place. 4P-1:16-18

Further to the shift they experience, from being unsynchronised to getting synchronised with the thinking of others, users experience a specific change with their personal cognitive modus operandi when they utilise de Bono's Purpose Focus tool during work team occasions. This change is characterised with *focused levelling*, a particular aspect of *cognitive levelling*. Users also experience a change with their personal cognitive modus operandi, that is specifically associated with how they communicate the outcome of their thinking when they utilise de Bono's tools during work team occasions. This change is characterised with *levelled forwarding*, also a particular aspect of *cognitive levelling*.

Cognitive Levelling; Focused Levelling

Focused levelling is changes with personal cognitive modus operandi during work team occasions when utilising de Bono's Purpose Focus tool²⁸.

With *focused levelling* a user of de Bono's tools experiences the confining of their thinking about the issues a work team wants or needs to deal with, to the same Purpose Focus as everyone else, at the same time as everyone else. This may involve several Purpose Focuses during a work team occasion and a work team may define these themselves or be given Purpose Focuses that are defined by, a more knowledgeable other, or one or more members of the work team. Regardless of how a Purpose Focus originates however, when a user is utilising the Purpose Focus tool during a work team occasion, they concentrate on what needs to be achieved with a work team's collective thinking about an issue, as defined by the team's Purpose Focus. This is a significant change from their normal personal cognitive modus operandi during work team occasions prior to being introduced to de Bono's tools, described by a user as "*thinking about anything and everything*".

During a work team occasion when they are utilising de Bono's tools, a user also constrains their thinking about an issue the work team is trying to deal with, by utilising the same de Bono tool or sequence of tools that is aligned with the group's Purpose Focus, at the same time as everyone else involved. They perceive this way of operating with their thinking as being a significant change in their personal cognitive modus operandi during work team occasions, as illustrated by the comment:

It's very different from what you normally do in a team, I'm operating differently with my thinking, that is I am doing my own thinking and other people are operating differently with their thinking because of course they are doing their own thinking, but we are thinking about the same thing, like at the same time, we all have the same Focus and we all use the same tools to think about the Focus, like if we need Yellow Hat we all use it at the same time about the positive things with whatever the Focus is and

²⁸ *Cognitive levelling* may also be experienced by users of de Bono's tools as change with their personal cognitive modus operandi when they specifically utilise de Bono's Area Focus tool, however time restraints prevented further theoretical sampling to fully ground this possible dimension of *focused levelling*.

share our thoughts with that and then move on to, well Black Hat for example, and all use that at the same time and share our thoughts, and so on, together. G2-3:80

Cognitive Levelling: Levelled Forwarding

Levelled forwarding is changes with personal cognitive modus operandi during work team occasions when utilising de Bono's tools, specifically associated with communicating outcomes from personal utilisation of a single de Bono tool.

Prior to being introduced to de Bono's tools, a user's cognitive modus operandi during work team occasions involves automatic and instant assessment of the thoughts and ideas other people share during a meeting, discussion or conversation. With *levelled forwarding*, a user experiences a change from classifying the output of another person's thinking, to paying no attention to what might be right, wrong, good, not so good, inconsequential, important, pertinent or off the point with another person's thoughts or ideas about an issue. Therefore a user experiences a change from, concentrating on another person's thinking and whether it fits or doesn't fit with what a group is trying to achieve during a work team occasion, to concentrating on contributing their own thoughts that are the output from using the same de Bono tool as everyone else. Their intent during a work team occasion when the tools are utilised, changes from their normal habit of evaluating other people's thinking, to building on other people's thinking, as illustrated by the comment:

If you are using the tools correctly nothing anyone says is necessarily incorrect because it's a viewpoint, it's a perception and perception is reality for that person and their view is valid and put down like everyone else's, everyone's views that come from using the same tool, are put down one after the other no matter what they are, you just have to keep thinking with an 'and', not a 'but' and just keep adding your own ideas, not contrasting them with anyone else's, that's what you have to do to help us all get where we want to go with our thinking as a group, you know achieve our Purpose Focus. G3-3:73-74

Summary

With *structuring new thinking* during Tooling-Up, changes in a user of de Bono's cognitive capability when they start utilising de Bono's tools, as characterised with *cognitive languaging*, *cognitive disciplining*, *cognitive focusing* and *cognitive levelling*, are experienced by a user as significant changes in the way they talk about their thinking; how they organise their thinking; how they think about issues they want or need to deal with and how they personally think during work team occasions involving one or more other people who are also utilising de Bono's tools.

(3) Consistency of Structuring with Structuring New Thinking During Tooling-Up

Further to *structuring* activating changes in cognitive capability, and *cognitive languaging*, *cognitive disciplining*, *cognitive focusing* and *cognitive levelling* as particular elements of *structuring* activating specific changes in cognitive capability during the *structuring new thinking* phase of *structuring*, emergent dimensions of *structuring* characterise the consistency of this change. The five dimensions of *structuring* characterising the consistency and therefore the stability of change in cognitive capability when a user utilises de Bono's tools are *weakest structuring*, *weak structuring*, *moderate structuring*, *strong structuring* and *robust structuring*. Three of these dimensions emerge with *structuring new thinking* during Tooling-Up, these being *weakest structuring*, *weak structuring* and *moderate structuring*. These dimensions emerge sequentially and are also cumulative, therefore during Tooling-Up *moderate structuring* has to emerge and be sustained, long enough for Tensing to commence as the second stage of *getting-on-the-same-page*. However, how long it takes for these dimensions of *structuring* to emerge and how long is long enough for *moderate structuring* to cause *distinguishing* and therefore the commencement of Tensing, is temporally relative to each user of de Bono's tools.

Weakest Structuring and Weak Structuring

With *weakest structuring* change in cognitive capability when de Bono's tools are utilised is always inconsistent and therefore always unstable, as illustrated by the comment:

I get how to use them sort of, the tools, the Hats particularly sort of, I get it wrong though, mix up what Hat's what, you know, I don't use them in a planned kind of way, um, I know how to use them sort of, I'm just pretty loose about it, sometimes I use the names of the tools, sometimes I don't, sometimes I'm focusing, then not, I'm just loose and I guess mixed up with it all. G3-1:9

With weakest structuring, languaging general thinking is negligible and completely haphazard, languaging operational thinking is also negligible and very inconsistent because with weakest structuring, changes characterised with cognitive disciplining, cognitive focusing and cognitive levelling, are also very inconsistent. A user's utilisation of de Bono's tools is disorganised, imprecise and always fluctuating; naming tools and processes is not habitual and frequently incorrect; de Bono's Purpose Focus tool is mostly used incorrectly, and a user frequently forgets to use Parallel Thinking. Because change is always inconsistent, therefore unstable, with weakest structuring change in cognitive capability can be easily disrupted and quickly dissipate. With weak structuring however, utilising the tools is less disorganised. Naming tools and processes is more frequent and correct more often; the rules and processes associated with the use of the tools are more frequently applied. However, de Bono's Purpose Focus tool is still often used incorrectly and Parallel Thinking, although sometimes adhered to, is not yet considered to be a crucial practice of using de Bono's tools in a group situation.

Moderate Structuring

With moderate structuring change in cognitive capability when de Bono's tools are utilised is mostly consistent and therefore mostly stable, as illustrated by the comment:

I can separate it out in terms of where I was up to before I started using the tools, when I first started using them I was using them pretty loosely and got names and the like mixed up, then more and more consistently and I think it would be fair to say, deliberately deciding and then actually using the tools in the work environment, practising, using them over and over in an organised sort of way and following the rules, step by step and being more often focused, focused, focused. G1-2:35

Languaging general thinking is now more consistent with a user often consciously articulating their general modes of thinking at times when they utilise de Bono's tools, particularly in association with their utilisation of de Bono's Purpose Focus tool. *Languaging operational thinking* is also more consistent with a user often consciously naming tools and processes they are familiar with at times they are utilising the tools to deal with real-life everyday issues.

Cognitive focusing is more consistent with a user often utilising de Bono's Purpose Focus consciously as the starting point for their thinking about an issue, if they utilise the tools that are familiar to them by themselves and with others. *Cognitive disciplining* is more consistent at times a user utilises de Bono tools they are familiar with; names of familiar tools and processes are often used and mostly correctly; rules and processes associated with these familiar tools are almost always adhered to and the Purpose Focus tool is now often used methodically and precisely. *Cognitive levelling* is more consistent and sustained by a user at times when they are utilising de Bono's tools with other people during work team occasions, with a user mostly adhering to the principles of Parallel Thinking.

Overall, with *moderate structuring* a user is far less haphazard with their utilisation of de Bono's tools and far more regularly proactive in being organised and methodical in the way they utilise the tools they are familiar with. In addition, to the stability of change in cognitive capability, as characterised with dimensions of *structuring*, change in cognitive capability occurs within a cognitive/relational context.

(4) Thinking Space: Cognitive/Relational Context of Structuring

Thinking space is the cognitive/relational context within which phases of *structuring* occur. There are four dimensions of *thinking space*, these being the cognitive/relational context of *in-mind*, *in-mind-in-relationship*, *in-mind-in-enabling* and *in-mind-in-facilitation*. *Structuring new thinking*, as the phase of *structuring* emergent during Tooling-Up, occurs within the *in-mind* cognitive context and the *in-mind-in-relationship* cognitive/relational context.

In-Mind Cognitive/Relational Context with Structuring New Thinking

The *in-mind* cognitive/relational context within which *structuring new thinking* occurs during Tooling-Up, is an individual user privately utilising de Bono tools.

When they utilise de Bono's tools without being involved with anyone else, a user feels they are thinking in a "*personal mind space*" and they perceive this as a cognitive context specific to their utilisation of the tools that is separated from any interpersonal interaction with one or more other people. They put all of their attention into using the tools with their thinking on their own and perceive this as being distinctly different from "*thinking on the run*", or "*mixing thinking with everything else I'm doing*". They deliberately get into "*a quiet thinking space*" where they privately utilise de Bono's tools in their own mind, as illustrated by the comment:

I've found with the tools, when I'm using them, I'm going into a thinking space, in my mind, I'm thinking calmly about things, I can take things on board with my thinking on my own, personally like in a private thinking kind of way and think with the tools in a thinking space, that's in my mind, that's all going on inside my head and I'm not talking or being with anyone else. G1-2:89

In-Mind-In-Relationship Cognitive/Relational Context with Structuring New Thinking

The cognitive/relational *in-mind-in-relationship* context within which *structuring new thinking* occurs during Tooling-Up, is an individual user privately utilising a de Bono tool or tools when one or more other people, during a work team occasion the user is involved in, are privately utilising the same tool or tools, at the same time as the user. However, unlike *in-mind*, the *in-mind-in-relationship* cognitive/relational context only ever occurs concomitantly with *cognitive levelling*. While this distinction seems to imply *structuring new thinking* during Tooling-Up occurs sequentially within these contexts, this is not necessarily what happens.

When a user is introduced to the tools by a more knowledgeable other during a de Bono authorised training program, *structuring new thinking* occurs within the *in-mind* context, prior to occurring in the *in-mind-in-relationship* context. This is because the

in-mind-in-relationship cognitive/emotional context is only emergent when a user starts utilising the tools with their thinking during work team occasions within their workplace, after the completion of a training program. In comparison, when a user is introduced to de Bono's tools by a more knowledgeable other during an on-the-job work team occasion within their workplace, *structuring new thinking* immediately occurs within the *in-mind-in-relationship* context and may occur, or never occur, within the *in-mind* context. This simply means, a user who is introduced to de Bono's tools during an on-the-job work team occasion may only ever utilise de Bono's tools during work team occasions and never utilise the tools privately, on their own.

Nevertheless, regardless of when the *in-mind-in-relationship* cognitive/relational context emerges, it is perceived by users of de Bono's tools who do utilise the tools privately as a significantly different kind of thinking space from the *in-mind* cognitive/relational context. Also, with the *in-mind-in-relationship* cognitive context, users still perceive themselves as having a "*private thinking space*" however, within a "*collective thinking environment*".

Also, regardless of whether a user utilises de Bono's tools privately or only during a work team occasion, all users perceive the *in-mind-in-relationship* cognitive/relational context of *structuring* as being a completely different kind of thinking space they experience during work team occasions when de Bono's tools are not used. This is because, Parallel Thinking always occurs with *cognitive levelling* during work team occasions when de Bono's tools are being utilised and the *in-mind-in-relationship* cognitive/relational context emerges concomitantly with *cognitive levelling*. Therefore, from a user's perspective this kind of thinking space never occurs during work team occasions when de Bono's tools are not used, as illustrated by the comment:

Yes there is a direct connection between using the thinking tools, getting focused, knowing what I need to achieve with my thinking, which is inside my own head and what is happening with everyone else, the collective thinking that's going on all at the same time, it's a private, as well as a completely shared and connected kind of thinking space with Parallel Thinking, that's just not the same as being with people in a group doing any kind of thinking without the tools. G1-3:17

6.2.4 *Regulating*

Regulating is self-instigated guidance of personal thinking when utilising de Bono's tools.

Prior to utilising de Bono's tools, users seek actionable solutions to issues or problems as quickly as possible and consider this to be the normal and correct way to deal with issues in a business environment. However, with *regulating*, as they are utilising de Bono's tools, they start thinking about their thinking in ways they have not previously experienced, as illustrated by the comment:

For adults, I think many adults in organisations kind of go well I'm an adult, surely, I must have the answers, I think that's how I was. Why do I have to think about my thinking? So, um, using the tools it's very much an acknowledgment that I can benefit from actually taking time to have a think about my thinking and about how I'm going to handle something, like for example making a big decision. Because I think people and me, I was quite action orientated and, you know, not wanting to have to think about what I'm actually trying to do with my thinking. G3-3: 51-53

Within the fields of developmental psychology and cognitive education, a person's self-management of their thinking is referred to as metacognition, meaning higher-order or second order thinking (Flavell 1997, Hogan et al 2016, Hussain 2015). Flavell (1997, 906) specifically defines metacognition "as an individual's ability to consciously monitor and control their thinking". Hussain (2015, 133) refers to metacognition as "second-order cognition that emerges when someone is capable of having thoughts about their thoughts". Often referred to as 'thinking about one's thinking', Perkins (1995, 85) describes metacognition as "people's knowledge of and management of their cognitive functioning". Hogan et al (2015) also maintain thinking metacognitively, firstly involves an individual being aware of their personal cognitive processes through their self-monitoring and self-regulation and secondly, involves an individual being capable of deliberately applying appropriate cognitive processes that are available to them, for the specific purpose of learning and devising solutions.

With *regulating*, the conscious self-management and control of their thinking, that occurs when a user utilises de Bono's tools, varies however from being mostly unconscious through to always being consciously planned. Three dimensions of *regulating* explicate this variance, these dimensions being *mild regulating*, *moderate regulating* and *strong regulating*. Further to this *mild regulating* and *moderate regulating* emerge during the Tooling-Up stage of *getting-on-the-same-page*, whereas *strong regulating* emerges during Enabling.

Mild Regulating

Mild regulating is self-instigated guidance of personal thinking while utilising de Bono's tools, that is sometimes undertaken consciously.

Prior to being introduced to de Bono's tools a user is not accustomed to consciously considering the process of their thinking with a problem, issue or task. With *mild regulating*, while a user utilises the tools in a mostly rote manner, because they are putting considerable cognitive effort into "*mechanically*" following the principles and rules associated with the tools, at times they experience an unfamiliar awareness that they are deliberately paying attention to the thinking they are doing, as they utilise a tool, as illustrated by the comment:

Before the tools I never bothered to think about what kind of thinking I was doing I just did it then when I first started with the tools every now then I was sort of talking to myself about my thinking, like I was in my head saying well do I need to do some White Hat thinking? FG4-2:16

Moderate Regulating

Moderate regulating is self-instigated guidance of personal thinking while utilising de Bono's the tools, that is always undertaken consciously.

As depicted in figure 6.4 in Section 6.2.1 and explained in more detail in Section 6.2.2, when *moderate structuring* emerges, *linguaging operational thinking* is mostly sustained, with a user consciously naming tools and processes they are utilising to deal

with real-life everyday issues; *cognitive focusing* is mostly sustained, with a user often utilising de Bono's Purpose Focus consciously as a starting point for their thinking about an issue; *cognitive disciplining* is consistent at times a user utilises de Bono tools they are familiar with, therefore names of familiar tools and processes are no longer confused and mostly correct; rules and processes associated with these familiar tools are almost always adhered to and the Purpose Focus tool is most often used methodically and precisely. As a user gets more proficient with their utilisation of this particular de Bono tool, moderate structuring causes the transition of mild regulating to moderate regularizing. A user gets more conscious of the need to think about their thinking, as illustrated by the comment:

Now, now I often consciously start to think 'Oh', you know, 'I don't like that, so how do I deal with that? What's my Focus going to be? I don't just jump straight into solving problems anymore I start to think about the sort of thinking I'm doing when I use Purpose Focus, mostly I must say, but that's what I do now. G1-3:45

With *moderate regulating* thinking about their thinking is not only confined to times when a user utilises de Bono's Purpose Focus tool. A user is now mostly explicit, clear and precise with the self-initiated guidance of their thinking, when they utilise all de Bono tools they are familiar with, as illustrated by the comment:

I guess when I got good with the Hats, particularly Blue Hat and Focus, then I was able to say 'Oh I need some White Hat thinking', I was able to separate my emotions from my information in my own head and focus my brain on doing that and then with the Hats as a foundation of all the thinking I do with lots of other de Bono tools like CAF, FIP and K.V.I and so on, with all that, I end up having done a lot of thinking about what's needed with my thinking and how I'm constantly controlling my thinking to use all these tools. P6-2:88-90

Also, with *moderate regularizing* a user consciously chooses sequences and combinations of de Bono's tools, explicitly concentrating on managing what they need to achieve with their thinking while using a variety of tools to accomplish this. Therefore, this not only involves overtly thinking about their thinking when they are utilising de Bono's Purpose Focus tool to define what they need to achieve with their

thinking about a problem, issue or task, it also includes conscious self-management of their thinking in order to choose and then utilise appropriate de Bono tools, to successfully undertake thinking as directed by their Purpose Focus, as illustrated with the comment:

I'm really trying to put a few minutes into thinking about 'Do I need a Purpose Focus here?' and if I do then trying to define what it is I'm actually needing to think about, with what the Focus should be and then I can work out the other tools and do some managed thinking, not just shoot off an email and regret later that I should have thought more about my thinking before doing that. G1-1:115

Regulating and Extant Literature

The discovery of *regulating* with the Theory presented in this Thesis, is consistent with the explanation of metacognition in extant literature, within the fields of developmental psychology and cognitive education, particularly the four dimensions of metacognitive thinking proposed by Perkins and Swartz (1990a, 1990b). These dimensions of metacognition are referred to as the 'ladder of metacognition', a framework of four distinct levels of utilising metacognitive thinking, with these levels being tacit use, aware use, strategic use and reflective use (Perkins 1992, Perkins and Swartz 1990a, 1990b).

With tacit use, thinking is done automatically without any awareness, therefore there is an absence of metacognition. Awareness use is thinking about one's thinking to a limited degree, with a thinker consciously labelling or categorising their thinking. Strategic use goes beyond labelling however, with a thinker deliberately choosing a process to guide their thinking and thinking about their thinking, in order to direct it. Reflective use goes beyond both labelling and directing, with a thinker deliberating revising their thinking practices and re-inventing how they think (Perkins 1992).

Specifically, the discovery of *mild regulating* is consistent with aware use and the discovery of *moderate regulating* is consistent with the metacognitive thinking level of strategic use, as described by Perkins and Swartz (1990a, 1990b). With *moderate regulating* a user of de Bono's tools metacognitive effort transitions from only

sometimes being aware of their thinking, to getting always consciously aware of how they jump too quickly to solving a problem they have not yet defined. Further to this they realise they need to stop doing this and take time to think about what they need to achieve with their thinking about a problem. The discovery of *moderate regulating* is however also consistent with the metacognitive thinking level described by Perkins and Swartz (1990a, 1990b) as strategic use. With *moderate regulating*, a user of de Bono's tools deliberately self-manages their thinking by selecting and using particular de Bono's tools that will enable them to undertake comprehensive thinking about an issue, problem or task, as directed by the Purpose Focus they have defined with their utilisation of de Bono's Purpose Focus tool. The discovery of *strong regulating* is also consistent with the metacognitive thinking level described by Perkins and Swartz (1990a, 1990b) as reflective use²⁹.

The discovery of the dimensions of *regulating* with the Getting On-The-Same-Page Theory, contrasts however with extant literature in respect to what facilitates or enables a change in metacognitive thinking and what this change might be when someone uses particular thinking tools or processes. It also appears extant literature does not pay attention to a causal relationship between the utilisation of thinking tools, for practical thinking, such as those designed by de Bono, and metacognitive thinking, as discovered with the study conducted for this Thesis.

While Costa et al (2001) suggests twelve strategies for developing metacognition, there is no mention however of the impact of using thinking tools for practical thinking on the development of metacognition. The strategies suggested by Costa et al only focus on a more knowledgeable other encouraging positive habits and attitudes towards thinking generally, encouraging a general language of thinking and modelling thinking about thinking, by articulating their own thinking.

Similarly, Perkins (1992) makes no reference to the impact of the utilisation of thinking tools per se, on the development of metacognitive capability and only focuses on a more knowledgeable other facilitating the use of broad thinking skills; encouraging the general use of a language of thinking and influencing positive

²⁹ *Strong regulating* as a dimension of *regulating* is explicated in Section 6.4.5.

thinking dispositions in various ways. Even though Perkins (1995) acknowledges operacy as a unique construct devised by de Bono, Perkins makes no connection between the utilisation of de Bono's tools and the development of metacognition, as proposed with the Getting On-The-Same-Page Theory.

6.2.5 *Straining*

Straining is the confluence of emotional discomfort and utilisation of de Bono's tools.

Straining occurs at the time a user is introduced to de Bono's tools and also when the tools are utilised at any time after this introduction. When a prospective user is introduced to de Bono's tools, they always react to this experience with some level of discomfort, as illustrated by user comments such as "*it made my head hurt*"; "*it was doing my head in*"; "*ouch, hard on my head*"; "*I was stressing big time*". However, the level of discomfort experienced when being introduced to de Bono's tools, and when the tools are getting utilised, is always relative to each prospective user or user.

Nevertheless, with the research conducted for this Thesis, at least three reasons have been discovered as to why *straining* occurs when a user is introduced to de Bono's tools. Firstly, users have to learn unfamiliar thinking tools and processes, secondly, they are thrust into an unspecified learning opportunity and thirdly, they have to deal with faltering self-confidence.

Having to Learn Unfamiliar Thinking Tools and Processes

In the realm of philosophy of mind, a thinking tool is considered to be a mental device to gain an enlightened view about the nature of things, with examples of thinking tools being analogies, metaphors and thought experiments (Dennett 2013, 1983). De Bono is critical however, of what he considers to be the non-practical thinking styles developed in the realm of philosophy (de Bono 1978). De Bono (1991, 2009c) therefore defines a thinking tool in a way which is more aligned with the field of cognitive education, where thinking tools are mostly associated with useful thinking, the concept of a thinking skill is still fuzzy however and this impacts on the definition

of a thinking tool (Harpaz 2014, 33). Consequently, in this field there are at least three interpretations of what constitutes a thinking skill.

Firstly, a thinking skill is considered to be a tool for the purpose of making thought processes more effective. Secondly, a thinking skill is referred to as the skill and cleverness of using a particular thinking tool, with the emphasis being on how a thinking tool is used, rather than the tool itself (Harpaz 2014, Ritchart, Church and Morrison 2011). Thirdly, a thinking skill is deemed to be a thinking routine, habit or disposition, which makes it possible to externalise thoughts with various methods such as speaking, writing or drawing, which are also considered to be tools for thinking (Ritchart and Perkins 2008).

When someone is introduced to a thinking tool designed by de Bono, consistent with the cognitive education emphasis on practical thinking, they are required to actively use the tool with their thinking to deal with everyday issues. In order to utilise a de Bono thinking tool, a user is also expected to pay attention to the particular characteristics of the tool they are using, not only for practical thinking but also to achieve the specific purpose of the tool, as intended by de Bono (1999a, 1999g, 1999h). Furthermore, when a prospective user is introduced to the tools, they are expected to pro-actively utilise these tools as quickly as possible. However, without having utilised de Bono's tools before, users are completely un-used to complying with these expectations, even if they are familiar with the term 'thinking tool'; have experienced thinking tools as interpreted within the realm of philosophy of mind, or experienced the development of thinking skills and the use of thinking tools as interpreted within the field of cognitive education.

Consequently, when they are introduced to de Bono's tools by a more knowledgeable other users feel some level of discomfort, ranging from a feeling of mild uneasiness to feeling very stressed, as illustrated by the comment:

There's real stress when you're first told about the tools, and its specific to these tools because they are radical, so so different from what you're used to, it makes you feel really uncomfortable, I know the first time I ever had to start using the tools it freaked me out, if you go off to something like project management training you're all right,

you know, you don't have to change how you're actually thinking, doing this, how you have to use de Bono's tools, it really freaked me out. G1-1:36-37

Being Thrust into an Unspecified Learning Opportunity

Given a prospective user knows little or nothing about de Bono's tools prior to being introduced to them by a more knowledgeable other, the expectation they will actively use unfamiliar tools and processes as quickly as possible after this introduction, implies they will have to put effort into learning how to do this. While a prospective user may perceive this introduction as an opportunity to gain some kind of personal benefit or possibly a benefit for their work team, in essence they are responding to an opportunity to learn by immersing themselves in unspecified cognitive skill-building. Prospective user's responses to the unspecified learning opportunity that comes with them being introduced to de Bono's tools by a more knowledgeable other, range from no interest at all, to mild curiosity, to being very excited. Paradoxically however a prospective user who is interested also feels uncomfortable, with this discomfort ranging from mild unease to feeling considerably stressed. This is because, although a they have been given an opportunity to personally develop and they hope this will benefit both themselves and possibly others, at the same time they realise they will have to invest time and effort into making changes to the way they think, when this may not lead to any benefits and may involve changing in ways they are not comfortable with, as illustrated by the comment:

You definitely have tension at the outset, you do resist it I think it's just based in what you know, you try to use the processes you have, it's the devil you know, the ways of thinking you already have, these are the habits we have, and you know, that you've been doing all your working life. Why should de Bono's set of tools suddenly be something different? Scepticism possibly, about the value of the tools possibly, anyway it's safe what you know. But then I was thinking hey this is an opportunity, I should go for it. Then thinking, Is it? Like what was I getting into? What was I going to get out of it? What changes was I going to have to make, what was learning these tools going to do for me? That made it uncomfortable, difficult. G4-2:40-44

Having to Deal with Faltering Self-Confidence

When a prospective user is introduced to de Bono's tools, having to change the way they think also affects their confidence. Prospective users are not accustomed to comparing the way they think with other possible ways of thinking. They have always taken for granted that the way they think is "*just what it is*" or "*perfectly adequate*", or as some users assume, "*a bit better than most people*".

When they are introduced to de Bono's tools, rightly or wrongly, a user perceives that they may not be as 'clever' or as 'smart' as they had assumed, and falter in their confidence about being an "*OK thinker*". This faltering ranges from a mild drop in confidence, to a significant drop in feeling confident about themselves as a thinker, as illustrated by the comment:

It was difficult because I wasn't used to it, it was uncomfortable because it exposed my own thinking, it made me question my own thinking. I always thought that I succeeded with my thinking, previously, but then with these new things, tools, tapping into new parts of my brain with new thinking, this was challenging because I felt like a baby, I felt inexperienced and vulnerable. G9-1:5-6

Further to the experiences inducing *straining*, that have been discovered with the research conducted for this Thesis, and any other reasons *straining* occurs when a user of de Bono's tools is introduced to and then utilises the tools with their thinking, there are dimensions of *straining* that characterise different levels of discomfort, these being *minimum straining* and *maximum straining*.

Minimum Straining and Maximum Straining

Minimum straining is the confluence of discomfort and utilisation of de Bono's tools at a level of discomfort that never hinders utilisation of the tools.

Maximum straining is the confluence of discomfort and utilisation of de Bono's tools at a level of discomfort which always hinders utilisation of the tools.

All users feel some level of discomfort at the time they are introduced to de Bono's tools. This can range from feeling slight uneasiness to feeling extremely stressed, as illustrated by the comment: *At first it was overwhelming, it was very, very overwhelming, I was scared I wasn't going to get it.* G5-1:14

However, what constitutes slight unease or extreme stress or any other intensity of discomfort, is relative to each individual user. Therefore, feeling mild stress can stop some users from utilising the tools with their thinking when they are first introduced to tools, or at any stage during the *getting-on-the-same-page* process, whereas other users need to feel extremely stressed before they stop learning or utilising the tools. There are also users who never get so stressed they stop utilising the tools. More significant however than the relativity of a user's feelings of discomfort, is the necessity for *minimum straining* to occur when a prospective user is introduced to the tools, rather than *maximum straining*. This is because, *getting-on-the-same-page* will not commence or continue if *maximum straining* occurs at any time after Tooling-Up has started. Furthermore, whether a prospective user or user of de Bono's tools experiences *maximum straining* or *minimum straining* is determined by *suppressing*.

6.2.6 *Suppressing*

Suppressing is self-induced tempering of *straining*.

When a prospective user is introduced to de Bono's tools and a user continues to utilise the tools, they are constantly controlling any discomfort they feel when they utilise de Bono's tools, as illustrated by the comment:

I just don't know if it's in our DNA or certainly culturally, to deliberately be using thinking tools with your thinking like you do with de Bono's tools, like you know from a cave man primitive perspective why would you? Just go out and get stuff done, find food, protect yourself, that's action oriented, particularly now in the kind of world we live in, it's action that counts, it's a different type of action but its action nevertheless, but to sit idle using these thinking tools there's almost a counter intuitive quality to it, so there's always this need to dampen down any angst you feel with that, keeping a lid on it, so you can get on and keep using the tools" P7:24-25

Regardless of the reason a user may have for feeling stressed when they utilise de Bono's tools, *straining* always occurs and therefore *suppressing* is always required for *getting-on-the-same-page* to commence and then continue through each stage. There are however different levels of effectiveness with *suppressing* that can emerge once *straining* occurs, these being: *robust suppressing*, *frail suppressing* and *nil suppressing*. As with degrees of *straining*, what constitutes 'effective' or 'ineffective' *suppressing* is relative to each individual who is introduced to de Bono's tools.

Robust Suppressing

Robust suppressing is effective self-induced tempering of *straining*.

With *robust suppressing* during the *structuring new thinking phase* of *structuring*, a user of de Bono's tools adopts various ameliorating strategies which enable them to handle the discomfort they feel when they are introduced to and then start utilising the tools. These *robust suppressing* strategies include a user diligently practising the use of the tools with non-critical issues while they increase their confidence to utilise the tools more often; deliberately using skill-building resources they have received during a de Bono authorised training program such as illustrated cards explaining the nature and function of each tool, or adopting various other tactics to temper their discomfort, as illustrated by the comment:

I've been really trying, like to forget, put aside my niggles about not getting it with the tools, sometimes just not understanding what I should be doing, so I just sort of put that aside and go and talk to the others, well run things past them about using the tools, because we've been doing the same work with the tools and we all get on the same page and it makes me keep going with it, without giving up 'cos I'm too angst.
G1-3:12

Frail Suppressing and Nil Suppressing

Frail suppressing is ineffective tempering of *straining* and *nil suppressing* is no self-induced tempering of *straining*.

With *frail suppressing*, over time any control of any discomfort a user may feel at times when they utilise the tools, gets less and less. This eventually causes *nil suppressing* and any discomfort experienced concomitantly with the utilisation of de Bono's tools, is no longer controlled in any way by a user. Therefore, when a user makes less and less effort to cope with their uneasiness about using the tools, eventually they make no effort to control any discomfort they feel either within an *in-mind* or an *in-mind-in-relationship* context, as illustrated by the comment:

For me it's got really frustrating, I think because I sort of feel like I'm almost there but I can't get my head into the mode that other people seem to lead into it more fluidly, so I find it's getting frustrating and harder for me to keep up my motivation to keep, you know, using the tools, I don't know why, I think probably because I'm older my thinking is too entrenched, I just really don't want to keep trying at it. G1-4:15

6.2.7 *Bettering*

Bettering is the disposition a prospective user or user has towards learning. Furthermore, *bettering* is an antecedent cognitive/emotive condition that exists prior to the commencement of Tooling-Up. The term 'disposition' is commonly defined as a natural tendency to do or develop something³⁰. More specifically a disposition towards learning is an individual's tendency towards putting emotional and cognitive effort into engaging with learning, further to this, as a tendency, an individual's learning disposition is a default response to indeterminate learning opportunities (Claxton and Carr 2004, Crick and Goldspink 2014). As explained in Section 6.2.3, there are several reasons why a prospective user of de Bono's tools feels discomfort when they are introduced to the tools, none the least being the challenge of suddenly being confronted by an unspecified learning opportunity, and therefore an indeterminate learning opportunity. However, how they respond to learning opportunities per se, impacts on how they respond to the particular opportunity they experience when they are introduced to de Bono's tools, as illustrated by the comment:

³⁰ Cambridge Dictionary 2019, accessed December 12, <https://dictionary.cambridge.org/dictionary/english/disposition>

I realised there are ways you have to think with the tools and it's unfamiliar, the thinking is very unfamiliar, but I just had to try and deal with that, if I didn't, well then I wasn't going to know what I was going to miss out on, what I could learn. G4-5:53

As an antecedent cognitive/emotive condition existing prior to the commencement of *getting-on-the-same-page*, *bettering* is activated when a prospective user is introduced to de Bono's tools by a more knowledgeable other. Regardless of whether this introduction is associated with an authorised de Bono training program or an on-the-job work team occasion, given prospective users perceive de Bono's tools as "*new thinking*", they are thrust into a personal learning context and therefore the strength of their disposition towards learning is immediately activated. Further to this, three dimensions of *bettering* explicate the strength of a disposition towards learning. Also, one of these dimensions of *bettering* is always activated when prospective users are introduced to de Bono's tools. These dimensions are *strong bettering*, *mild bettering* and *no-bettering*.

Strong Bettering

Strong bettering is the strength of a user's disposition towards learning that is underpinned by an unwavering belief making an effort to learn and personally develop, is always necessary and valuable.

With *strong bettering*, when a prospective user is introduced to de Bono's tools, even though they know nothing about the tools at this time, they don't consider this to be problematic, they are motivated to find out what they can gain from something that is new and different to the usual way they deal with issues, as illustrated by the comment:

No I didn't know anything about de Bono or the tools but I really like learning, learning anything really, I saw it as an opportunity to learn something new, so I decided to try out the tools and learn what I should do with them, because I just don't think I'm getting anywhere personally with work right now and I want to keep growing, developing. G1-3:2

Also, regardless of how challenging the introduction to de Bono's tools may be for them, with *strong bettering* a prospective user considers this challenge to be indicative of any learning process. Therefore, they perceive the unspecified learning opportunity they are experiencing when they are introduced to de Bono's tools as valuable rather than troublesome, they control any discomfort they are feeling to a manageable level and react to being introduced to the tools with curiosity, as illustrated by the commented: "*didn't understand it but keen to give it a go*".

With *strong bettering*, after Tooling-Up commences and through all stages of *getting-on-the-same-page*, a user of de Bono's tools continues to be curious and enthusiastic about learning and utilising the tools at any time. They strive to improve their use of the tools, regardless of how long they have been utilising them and keep an open mind about the possible value of any tool designed by de Bono. They continue to make an effort to actively utilise all de Bono tools they are introduced to, even when they are not sure where the opportunity to keep learning and utilising the tools is going to take them, as illustrated by the comment:

I'm always extremely open to learning something new, it was a bit hard because it was new and a bit confronting, but when I got the chance to see what the tools were about, I just wanted to find out what I could learn, but, the change in being aware about why the tools are important came about quite a while after I started using them with other people. It was wanting to learn something new, I think that carried me forward when I didn't know where it was going to end up and I got a bit stuck and got frustrated using some of the tools. G8-1:49-51

Mild Bettering

Mild bettering is the strength of a disposition towards learning underpinned by a belief learning is useful, until it gets too difficult to justify the effort it requires.

With *mild bettering*, when a prospective user is introduced to de Bono's tools, they are interested in learning something new, however the unfamiliarity of the tools makes them wary about what is involved. As they experience difficulties trying to utilise the tools, which for whatever reason makes them feel stressed, they re-consider the

opportunity to learn about the tools and decide it is not worth the effort they have to expend, to get past any learning difficulties or problems they are encountering. Therefore, with *mild bettering*, after they start utilising de Bono's tools, a user may at any time put less effort into tempering any discomfort they are feeling and eventually stop making any effort to learn anything more about utilising the tools, as illustrated by the comment:

I did what I could to use the tools when I went to the meetings, I kept giving it a go but learning all this new terminology and the way you use the tools it's different and eventually I just thought enough's enough, I don't want to work out how to use these things anymore, it's not worth my time trying to learn any more stuff. G2-F4:18

No-Bettering

No-bettering is the strength of a disposition towards learning underpinned by a belief that there is no need to learn anything new and different from what is already known, experienced or feels comfortable.

With *no-bettering*, when a prospective user is introduced to de Bono's tools, they make no effort to temper any discomfort or uneasiness they are feeling and put more effort into avoiding any learning, rather than learning how to utilise the tools. This effort to avoid learning anything about de Bono's tools, is illustrated by the comment:

I can't see any point to learning anything about this thinking tools stuff. Really what's the point? It's not going to change anything I do with my thinking. I'm just not going to change so it's a waste of time and besides I can't be bothered. G2-F7:4

The comparison between *strong bettering*, *mild bettering* and *no-bettering*, where *no bettering* characterises the strength of someone's learning disposition when they have no interest in learning anything new from what they already know or feel comfortable with, is further illustrated by the comment from a user with a disposition towards learning underpinned by the belief learning is valuable and necessary:

It was all new to me, but I was really excited to get the chance to learn all about the tools, I did find it hard but I was really keen to learn and straight away then when I

used them a bit, I really wanted to talk to my work crew about the tools and you know learning the tools 'cos I was excited and they just didn't want to know anything about it, nothing. I tried to tell them, and I was sitting there going 'oh well, why don't we think about it' and they just sort of rolled their eyes and just didn't have any interest in learning anything, I like embracing new things and think learning new things is really important but there just wasn't any effort to even ask me a question about what they could be learning. P5-1:2-3

Bettering, Suppressing and Extant Literature

The discovery of *strong bettering* as a pre-requisite cognitive/emotive condition for the commencement and continuation of *robust suppressing*, is consistent with several constructs promulgated in extant literature. These include concepts associated with the human psychology theory of stress and coping developed by Lazarus and Folkman, and aspects of the self-efficacy construct central to Bandura's social learning and social cognitive theories (Krohne 2001, Lazarus and Folkman 1984).

The Lazarus and Folkman theory of stress and coping focuses on the role of cognitive appraisal as an individual's evaluation of the significance of what is occurring regarding their well-being and coping, cognitive appraisal being an individual's efforts to manage both in thought and action, the specific demands they are experiencing (Krohne 2001, Lazarus and Folkman 1984; Schwarzer and Taubert 2015.). This theory proposes, an individual appraises if they are in trouble or are going to be benefited at the time of appraisal or in the future and in what way, then they start managing the demands induced by the relationship between themselves and their environment, that they have appraised as being stressful and the emotions that are generated by these demands. This management of stress is the individual coping with the demands they are experiencing.

Coping has been defined by Lazarus and Folkman (1984, 178) as "consistently changing cognitive and behavioural efforts to manage external and/or internal demands that are appraised as taxing or exceeding the resources of the person". The resources a person draws upon in order to cope, include their already formed positive attitudes and beliefs about learning; effective efficacy expectations; general beliefs

about persistence and their inward locus of control (Biggs, Brough and Drummond 2017, Lazarus and Folkman 1984).

In relation to effective efficacy, Lazarus and Folkman (1984) consistently refer to the self-efficacy construct developed by Bandura. According to Bandura (2001, 1989, 1979) a person's self-efficacy is their beliefs about their capabilities to exercise control over events that effect their lives. This influences what challenges they will undertake at any point in time; how much effort they will expend in the challenge; how long they will persevere when confronted by failures and obstacles and whether these have a motivating or demoralising effect. Bandera (2002) also maintains a person's core belief, that they have the power to produce effects by their own actions, fundamentally impacts on their self-development, adaptivity and renewal with changes over time.

The discovery of *strong bettering* as a pre-requisite cognitive/emotive condition for the commencement and continuation of *robust suppressing*, is also particularly consistent with the seminal 'mindsets theory' developed by Dweck (2012, 2017) in the domain of psychology, and more specifically, within the area of motivation and learning. In addition to the discovery of *strong bettering* as a dimension of *bettering*, being consistent with Dweck's particular construct of a growth mindset, the discovery of *mild bettering* as another dimension of *bettering* is consistent with the description of a false growth mindset, as proposed by Dweck (2016). Also, the discovery of *no bettering* as a dimension of *bettering*, is consistent with the construct of a fixed mindset as proposed by Dweck (2016).

Further to an individual having a core belief about their power to produce positive effects by their own action, Dweck's mindsets theory focuses on an individual's specific belief about ability per se and the effect this has on them coping with distress, challenges and detrimental results from their actions. Dweck (2012a, 2016), also maintains there are two meanings to 'ability' which reflect an individual's belief about their own and other people's abilities, and these indicate whether an individual has a 'growth mindset' or 'fixed mindset'.

Substantial research conducted by Dweck (2012a, 2012b, 2016, 2017) has established an individual with a fixed mindset does not consider traits and abilities as changeable;

doesn't believe learning and effort will make a great deal of difference to how well they are going to perform with challenging tasks. To a person with a fixed mindset failure means they are not smart or talented therefore, making an effort in situations where there is high risk of failure is not valued or warranted. In contrast to a fixed mindset, individuals with a growth mindset consider abilities are changeable; they are motivated to stretch themselves to learn something new and keep persisting with steep learning curves because they believe this is necessary to grow their abilities. Therefore, for a person with a growth mindset, effort is not a bad thing, they consider it is what makes someone smart and/or talented. Further to the definition of a growth mindset, Dweck (2016, 2) also identifies "the qualities of a false growth mindset", as qualities which include an individual's ability to be flexible or open-minded, or to have a positive outlook, however these qualities should not be confused with the construct of a growth mindset.

6.2.8 *Closing Down*

Closing down is disengaging from any utilisation of de Bono's tools, unless there is a requirement to utilise the tools in a work team context by someone with the authority to stipulate this requirement. Unlike *blocking*, which occurs immediately someone is introduced to de Bono's tools, *closing down* temporally occurs after a user has been introduced to the tools by a more knowledgeable other and they have therefore, started utilising the tools. While someone who has started utilising de Bono's tools may experience benefits, closing down occurs regardless of a user experiencing these benefits. Also, disengaging from the utilisation of de Bono's tools can be a conscious or unconscious decision, nevertheless it is a definitive decision, as illustrated by the comment:

Part of me views stuff like this, well it's someone who's put names on things that we do and made a big, created a big job out of something that just happens, but the other half of me can see how it's really quite useful and using the tools more I got to overcome my thought process that this is a load of waffle, and yeah, I could see they were very useful tools but I'm just not using them at all, unless I just happen to get in a situation when I have to because, well because, it's expected by a team leader or a manager of something, or everyone in the group, then maybe I'll use them, mostly I

just avoid using the tools, even though I know the basics of how to use the Hats etc. etc. G2-5:35-37

When *closing down* occurs during both Tooling-Up and Tensing, these stages immediately discontinue and therefore *getting-on-the-same-page* terminates.

6.2.9 *Bettering and Continuation or Discontinuation of Tooling-Up*

The *getting-on-the-same-page* cognitive capability process is fragile. Therefore, if the processing of the not-on-the-same-page problem is disrupted, it can terminate at any time after someone has been introduced to de Bono's tools by a more knowledgeable other. While there may be many more reasons for *getting-on-the-same-page* to continue or terminate, other than those discovered by the study conducted for this Thesis, limitations on the time the Researcher could spend in organisations with work teams and limited resources to conduct the study prevented any further data collection to establish if there are other reasons and if so, what these might be. However, analysis of the data collected and saturation of the properties of the core category, discovered causal relationships between dimensions of *bettering*, as an antecedent cognitive/emotive condition, that are activated when a user of de Bono's tools is introduced to the tools. Other saturated properties of the core category also explain the continuation and termination of each stage of *getting-on-the-same-page*.

Mild Bettering and the Discontinuation of Tooling-Up

As explicated with the Overview of Tooling-Up in Section 6.2.1, when *mild bettering* is activated, at the time a user is introduced to de Bono's tools by a more knowledgeable other, *frail suppressing* can occur rather than *robust suppressing*. With *frail suppressing* there is ineffective *suppressing* of *straining* and this causes *maximum straining* rather than *minimum straining*. As depicted by figure 6.6 in Section 6.2.1, eventually a reinforcing feedback loop emerges between *weakest structuring* and *weak regulating*. This, causes a reinforcing feedback loop between particular elements and aspects of *structuring*, *regulating*, *bettering*, *suppressing* and *straining*. This particular reinforcing feedback loop causes unabated *frail suppressing* to eventually transition to *nil suppressing*. Sustained *nil suppressing* becomes a tipping point causing *closing*

down and the processing of *getting-on-the-same-page* during Tooling-Up is terminated.

If a user of de Bono's tools with a belief learning is useful until it gets too difficult to justify the effort it requires, reacts to any discomfort they feel at times when they try to utilise the tools by putting less effort into tempering this tension they are feeling, this begets more tension, which begets less effort. With this reinforcing cycle of increasing tension and diminishing relief of their stress, their utilisation of de Bono's tools remains very inconsistent, disorganised and imprecise and there is no opportunity for them to ascertain if getting more skilled at utilising the tools, is going to be of any value to them. Escalating discomfort in combination with ever decreasing effort to utilise the tools, results in definitive non-utilisation of the tools by a user with the belief learning is useful until it gets too difficult to justify.

Mild Bettering, Strong Bettering and the Continuation of Tooling-Up

When *mild bettering*, like *strong bettering*, causes *robust suppressing* rather than *frail suppressing*, eventually *moderate structuring* emerges. As depicted by figure 6.6 in Section 6.2.1, eventually a reinforcing feedback loop emerges between *moderate structuring* and *mild regulating*. This, causes a reinforcing feedback loop between particular elements and aspects of *structuring*, *regulating*, *bettering*, *suppressing* and *straining* that causes unabated *robust suppressing*. Sustained *robust suppressing* becomes a tipping point that causes *distinguishing* and Tensing commences as stage two of *getting-on-the-same-page*. *Distinguishing* is identifying types of cognitive interplay during work team occasions when de Bono's tools are utilised or not utilised that are perceived as indicating a work team is on-on-the-same-page or not-on-the-same-page.

When users of de Bono's tools, with a belief learning is useful until it gets too difficult to justify the effort or with a belief learning is both necessary and valuable, they are not unduly distressed by the discomfort they feel when they utilise the tools and therefore continue to utilise them. As they experience more changes with their cognitive capability and continue to control the concomitant discomfort they feel as these changes occur, they start perceiving different types of cognitive interplay during

work team occasions when de Bono's tools are utilised and when the tools are not utilised, which they never perceived prior to being introduced to the tools.

When this occurs a new stage of processing *getting-on-the-same-page* commences.

6.2.10 Tooling During Tooling-Up

As explained, with the Overview of Tooling-Up in Section 6.2.1, Tooling is the term used to denote a higher-order property of *getting-on-the-same-page* as the core category of the Getting On-The-Same-Page Theory. This higher-order property is theoretically conceptualised as an emergent system of double reinforcing (positive) feedback loops caused by sustained causal relationships between very particular dimensions, elements, aspects and/or contexts of *structuring*, *regulating*, *bettering*, *suppressing* and *straining* as lower-order properties of each stage of *getting-on-the-same-page*. This system of causal relationships is dynamic, therefore when it is not disrupted the particular dimensions of each of these lower-order properties that characterise Tooling, transition over time.

With this transitioning, the nature of Tooling as an emergent system of reinforcing feedback loops, changes during each stage of *getting-on-the-same-page*. Four emergent dimensions characterise this changing nature of Tooling, these being *nascent tooling*, *diminishing nascent tooling*, *maturing tooling* and *nuanced tooling*.

As depicted in figure 6.5 in Section 6.2.1, the particular dimensions of *structuring*, *regulating*, *bettering*, *suppressing* and *straining* as lower-order properties of each stage of *getting-on-the-same-page*, that constitute *nascent tooling* during Tooling-Up are *mild bettering* or *strong bettering*, *robust structuring*, *minimum straining*, *moderate structuring* and *moderate regulating*. When *nascent tooling* is unabated, over time this causes unabated *robust suppressing*. As explained in Section 6.2.8 and depicted with figure 6.5 in Section 6.2.1, *robust suppressing* becomes a tipping point causing *distinguishing* and therefore the end of Tooling-up and the start of Tensing, as a significantly different stage of *getting-on-the-same-page*.

6.3 Getting-On-The-Same-Page Process Stage Two: Tensing

This Section of Chapter Six explains Tensing, as the second stage of the capability change process of *getting-on-the-same-page*, from when Tensing commences with *distinguishing* until *taking-it-on* emerges and Enabling commences as the third and final stage. Prior to explicating Tensing in detail however an Overview of Tensing introduces the dimensions, elements and aspects of the properties of Tensing, and the relationships between these, that emerge during this second stage of *getting-on-the-same-page*.

6.3.1 Overview of Tensing

Distinguishing is identifying types of cognitive interplay during work team occasions when de Bono's tools are either utilised or not utilised, that are perceived as indicating a work team is either on-the-same-page or not-on-the-same-page. *Distinguishing* demarcates Tensing from Tooling-Up and temporally occurs after a user has been introduced to de Bono's tools, at a time relative to each user.

As explained in Section 6.1 'cognitive interplay' is a convenient descriptor devised during the writing-up of the Getting On-The-Same-Page Theory. It denotes the complex interactive mix between personal cognition and concomitant overt behaviours that occur when one or more people engage in interpersonal communication during work team occasions, with cognition defined as the intellectual activity of thinking and understanding, and behaviour defined as how someone acts or conducts themselves, especially towards others.

Although Tensing commences when *distinguishing* emerges, *distinguishing* only occurs when the level of change with cognitive capability, is mostly consistent and therefore mostly stable. This is specifically caused by particular aspects of *cognitive levelling* within an *in-mind-in-relationship* cognitive/relational context during Tooling-Up. As explained in Section 6.2.3, this cognitive/relational context of *structuring*, is an individual privately utilising a de Bono tool or tools when one or

more people, during a work team occasion the user is involved in, are privately utilising the same tool or tools at the same time as the user.

Distinguishing also has two dimensions, however each of these is specific to a temporal-based context, rather than cognitive/relational context. These dimensions are *distinguishing on-the-same-page* and *distinguishing not-on-the-same-page*. *Distinguishing on-the-same-page* is identifying types of cognitive interplay during a work team occasion when de Bono's tools are utilised, that are perceived as indicating a work team on-the-same-page. *Distinguishing not-on-the-same-page* is identifying types of cognitive interplay during a work team occasion when de Bono's tools are utilised, that are perceived as indicating a work team in not-on-the-same-page.

When these temporal-based disparate dimensions of *distinguishing* emerge, this causes more *moderate structuring*. Furthermore, a reinforcing feedback loop emerges between *moderate structuring* and *distinguishing on-the-same-page* plus *distinguishing not-on-the-same-page*, as depicted with Tensing: Hypothesis #1 in figure 6.9.

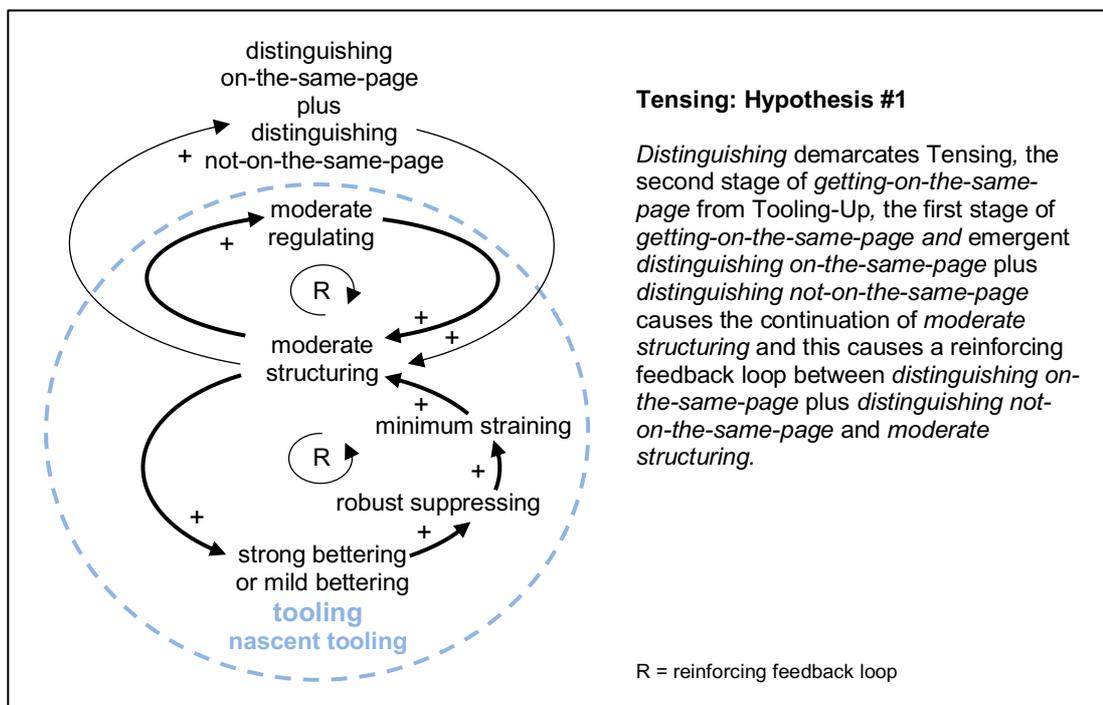


figure 6.9
Tensing: Hypothesis #1.

Distinguishing and Angst-ing

Over time, relative to each user of de Bono's tools, when the reinforcing feedback loop between *moderate structuring*; *distinguishing not-on-the-same-page/distinguishing on-the-same-page* continues unabated and this causes *mild angst-ing*. *Angst-ing* is emotional stressing, simultaneously occurring with *distinguishing not-on-the-same-page*. *Mild angst-ing* is tolerable emotional stressing. What constitutes 'tolerable', also being relative to each user. Over time, sustained *mild angst-ing* causes further *moderate structuring*, which causes more *distinguishing not-on-the-same page* and a reinforcing feedback loop emerges between *moderate structuring*, *distinguishing not-on-the-same-page* and *mild angst-ing*, as depicted with Tensing Hypothesis #2, in figure 6.10.

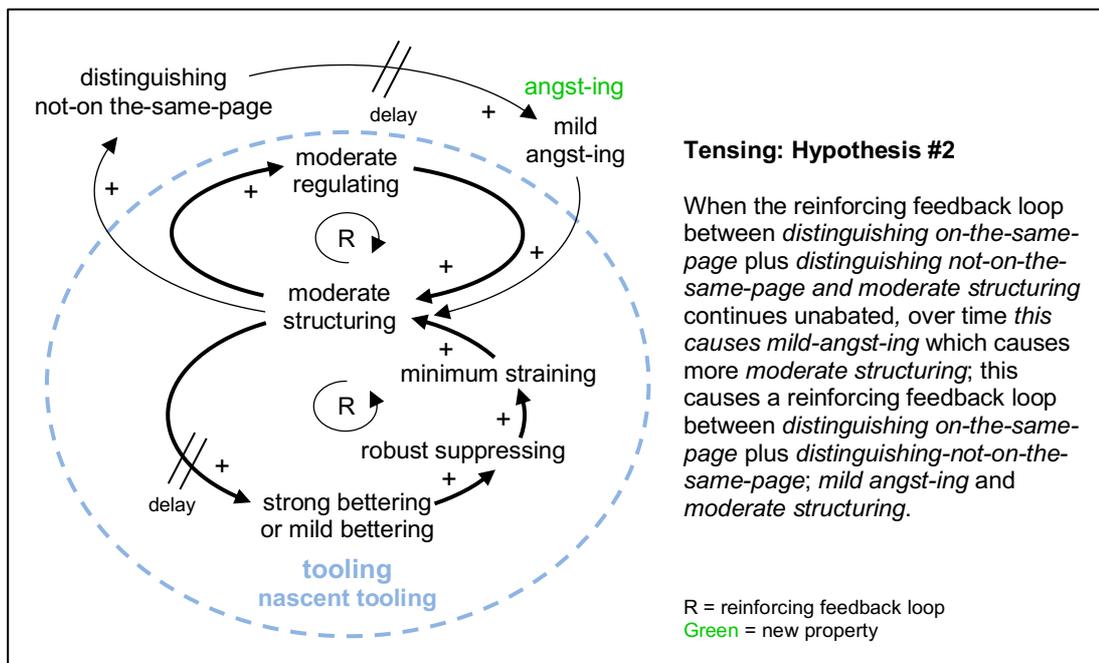


figure 6.10

Tensing: Hypothesis #2.

Bettering, Angst-ing and Fiddling

When either *mild bettering* or *strong bettering* are activated at the time a user is introduced to de Bono's tools, if the reinforcing loop between *distinguishing on-the-same-page* plus *distinguishing not-on-the-same-page*; *mild-angst-ing* and *moderate structuring* is sustained, this causes the transition of *mild angst-ing* to *extreme angst-ing*. *Extreme angst-ing* being, intolerable emotional stressing, simultaneously

occurring with *distinguishing-not-on-the-same-page*. Over time this reinforcing feedback loop causes *informal fiddling*. *Fiddling* is self-initiated reactive attempts to stop the types of cognitive interplay that always indicate a work team is not-on-the-same-page, from occurring during a work team occasion when the tools are not utilised. *Informal fiddling* causes more *moderate structuring*, over time a reinforcing feedback loop emerges between *distinguishing not-on-the-same-page*, *extreme angst-ing*, *informal fiddling* and *moderate structuring*, as depicted with Tensing Hypothesis #3, figure 6.11.

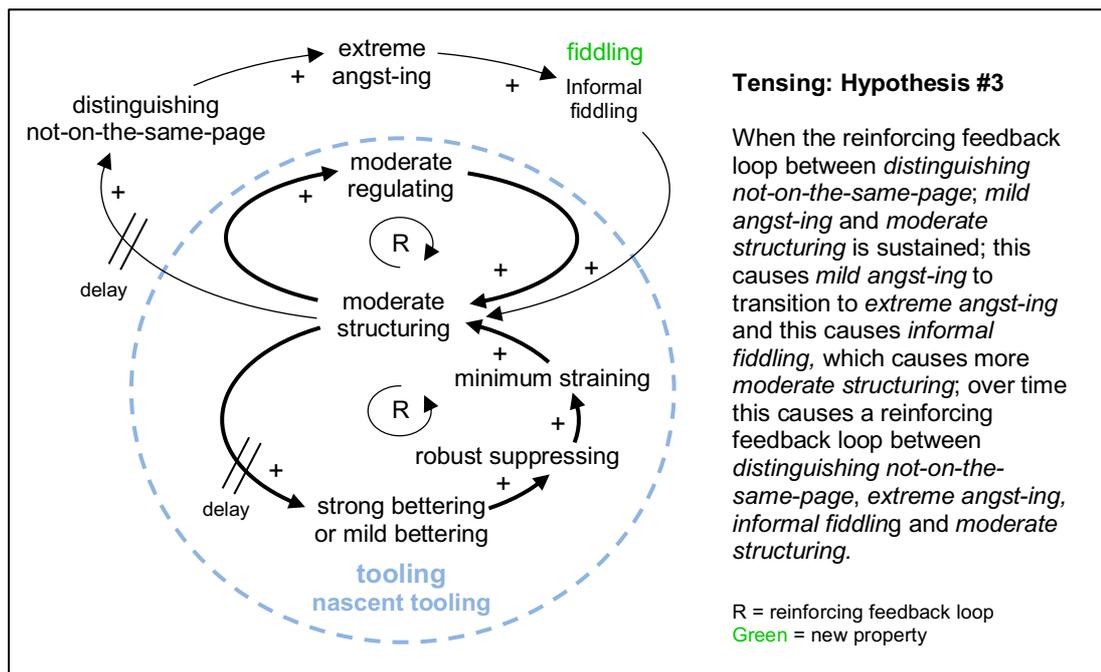


figure 6.11
Tensing: Hypothesis #3.

Bettering and the Continuation or Discontinuation of Tensing

As explained in Section 6.2.9, while there are possibly many more reasons for *getting-on-the-same-page* to continue or discontinue than those discovered by the study conducted for this Thesis, with analysis of the data collected for the study and saturation of the properties of the core category, causal relationships were discovered between particular dimensions of *bettering* and other properties of the core category, which explicate both the continuation and termination of *getting-on-the-same-page*. More specifically, with the first stage of *getting-on-the-same-page*, when *mild bettering* rather than *strong bettering* is activated at the time a user is introduced to de Bono's tools, this does not necessarily mean Tooling-Up will eventually discontinue prior to

the commencement of Tensing. *Mild bettering*, as explained in Section 6.2.7, being the strength of a disposition towards learning, that is underpinned by a belief learning is useful, until it gets too difficult to justify the effort it requires. *Strong bettering*, as also explained in Section 6.2.7, being the strength of a disposition towards learning, that is underpinned by an unwavering belief making an effort to learn and personally develop, is always necessary and valuable. However, in comparison to what occurs during Tooling-Up, when *mild bettering* is present at the time a user is introduced to de Bono's tools by a more knowledgeable other, Tensing always discontinues, prior to the commencement of the next stage of *getting-on-the-same-page*. Therefore, Enabling only emerges as the third and last stage of *getting-on-the-same-page*, if *strong bettering* is present at the time a user is introduced to de Bono's tools by a more knowledgeable other.

Bettering, Angst-ing, Fiddling, Rationalising and Closing Down

If *mild bettering* is present at the time a user is introduced to de Bono's tools, when *extreme angst-ing* manifests during Tensing, this causes *rationalising*. *Extreme angst-ing* being intolerable emotional reacting, simultaneously occurring with *distinguishing not-on-the-same-page* and *rationalising* being the adoption of plausible reasons for abandoning *fiddling*.

When *rationalising* emerges *informal fiddling* simultaneously ceases and this causes a reduction in *moderate structuring* which causes an increase in *distinguishing not-on-the-same-page*, which causes more *extreme angst-ing* which causes more *rationalising*. Subsequently, a reinforcing feedback loop emerges between *distinguishing not-on-the-same-page*, *extreme angst-ing*, *rationalising* and *moderate structuring* which causes *nascent tooling* to transition to *diminishing nascent tooling*. *Diminishing nascent tooling* being a system of reinforcing feedback loops, between, *moderate structuring* and *moderate regulating* and *moderate structuring*, *mild bettering*, *fragile suppressing* and *minimum straining*. With sustained *diminishing nascent tooling*, *extreme angst-ing* becomes a tipping point. This tipping point causes *closing down*. As with emergent *closing down* during Tooling-Up, when *closing down* occurs during Tensing, a user disengages from the utilisation of de Bono's tools, unless they are required to utilise the tools in a work team context by someone whom they

perceive as having the authority to stipulate this requirement. Therefore, when *closing down* occurs Tensing ceases, as depicted with Tensing Hypothesis #4, in figure 6.12.

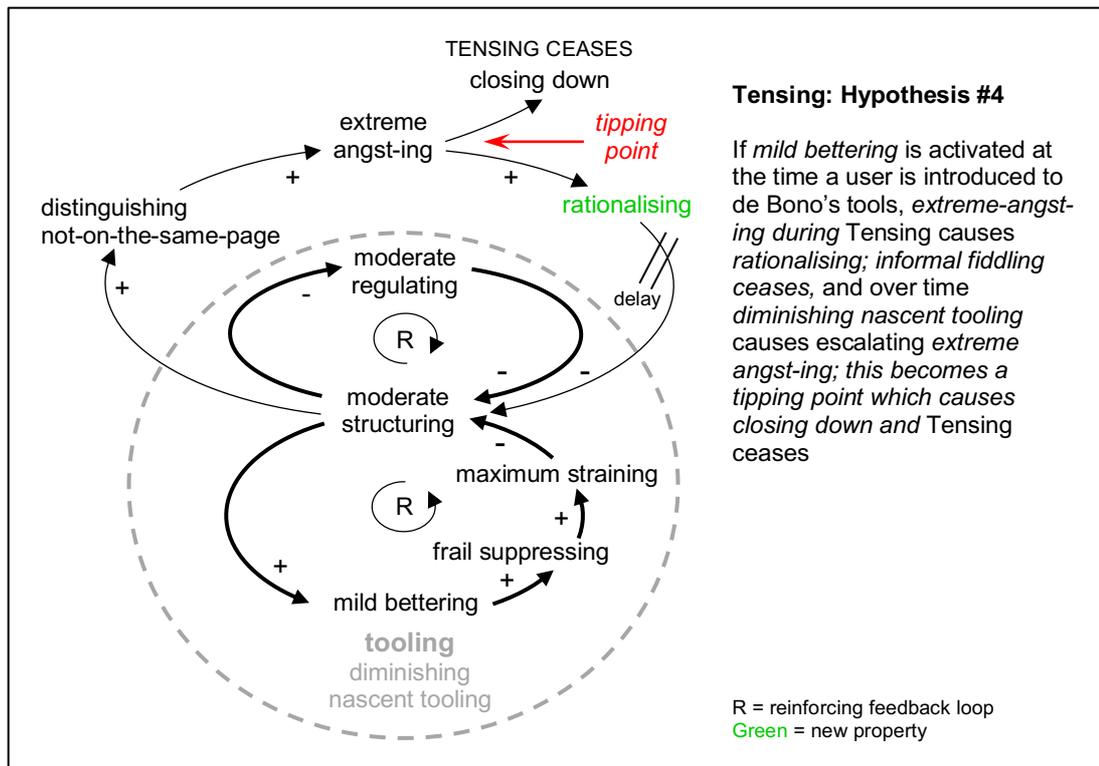


figure 6.12
Tensing: Hypothesis #4.

Bettering, Angst-ing, Fiddling and Taking It On.

If *strong bettering* rather than *mild bettering*, is activated at the time a user is introduced to de Bono's tools, when *extreme angst-ing* emerges during Tensing, this causes more *informal fiddling* which causes more *moderate structuring* and over time the reinforcing feedback loop between *moderate structuring*; *distinguishing not-on-the-same-page*; *extreme angst-ing* and *informal fiddling* causes *informal fiddling* to transition to *formal fiddling*. Over time, sustained *formal fiddling* causes *moderate structuring* to transition to *strong structuring* and this causes *nascent tooling* to transition to *maturing tooling*. Subsequently, with sustained *maturing tooling*, *extreme angst-ing* becomes a tipping point and *taking-it-on* occurs.

Taking-it-on is committing to helping people in the substantive area of business organisations to utilise de Bono's tools. With *taking-it-on* a user commits to resolving their concern about always being emotionally stressed about the not-on-the-same-page the problem, by helping people who know nothing or very little about de Bono's tools,

to utilise these tools during work team occasions. When *taking-it-on* emerges Enabling commences as the last stage of *getting-on-the-same-page*, as depicted with Tensing Hypothesis #5, in figure 6.13.

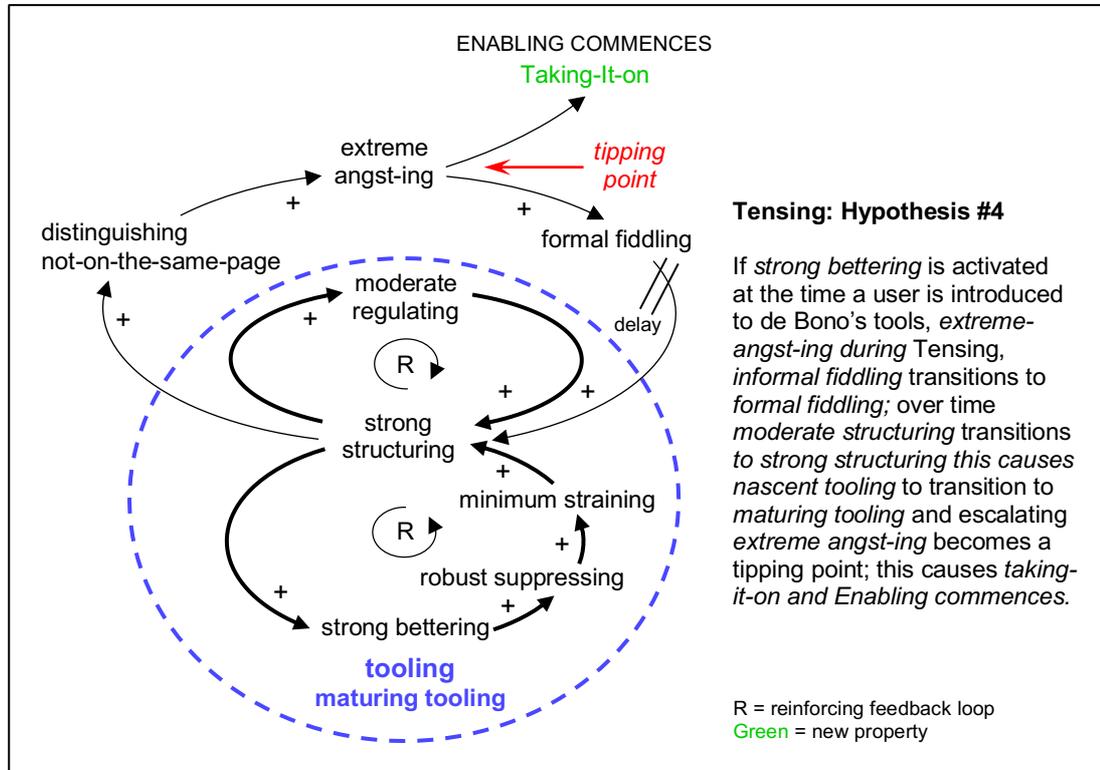


figure 6.13
Tensing: Hypothesis #5.

The Overview of Tensing has introduced the dimensions, elements and/or aspects of the properties of Tensing and relationships between these. These properties will now be explained in detail.

6.3.2 Distinguishing

Distinguishing is identifying types of cognitive interplay during work team occasions when de Bono's tools are either utilised or not utilised, that are perceived as indicating a work team is either on-the-the-same-page or not-on-the-same-page.

When *distinguishing* occurs Tensing is immediately demarcated from Tooling-Up. *Distinguishing* only emerges however, when change in cognitive capability that is specifically caused by sustained *focussed levelling* and *levelled forwarding* during

Tooling-Up, is at the level of *moderate structuring*, this being change in cognitive capability with the utilisation of de Bono's tools that is mostly consistent and therefore mostly stable. When change in cognitive capability continues to be mostly consistent, a user starts to perceive cognitive interplay during work team occasions when de Bono's tools are used, which they have never experienced prior to utilising these tools with other people, when this happens *distinguishing* has emerged. This perception of unfamiliar cognitive interplay is illustrated by the comment:

You feel there's an energy shift and people operate very differently, when we are using the tools from when teams don't use them, it's like everyone's hopping on the same bus together and heading to the same place everyone wants to go and everyone's exactly aware of where they are going with no-one particularly sitting up the front because they're senior. G5-4:60

A user also considers, the distinct work team ambience they experience when they use de Bono's tools with other people, is specifically created by everyone using the tools, as illustrated with the comment:

I knew after the meeting started, I thought back to the meetings using the Hats and such, with everyone all using them together, I just thought geez, there wouldn't be so much bloody angst if we were using those de Bono tools, like I've done in a team with the Hats. G2-1:11

(1) Dimensions of Distinguishing

With *distinguishing*, a user has more than a general perception cognitive interplay during work team occasions when de Bono's tools are utilised, is different from what they have normally experienced prior to being introduced to the tools. As they continue to utilise tools during work team occasions, while also participating in work team occasions when de Bono's tools are not utilised, they start to perceive particular types of cognitive interplay, that they consider "*separates out*" work team occasions when de Bono's tools are utilised, from work team occasions when the tools are not utilised. Two dimensions of *distinguishing* characterise this more finely tuned differentiation

of various types of cognitive interplay. These dimensions are *distinguishing on-the-same-page* and *distinguishing not-on-the-same-page*.

Distinguishing on-the-same-page and *distinguishing not-on-the-same-page* occur simultaneously during Tensing, however temporarily at different times. This is because a user's identification of particular types of cognitive interplay, as characterised with these dimensions of *distinguishing*, occurs either when they are participating in a work team occasion and the work team utilises de Bono's tools, or when they are participating in a work team occasion and the work team doesn't utilise de Bono's tools. Before explicating these temporally disparate contexts however, *distinguishing on-the-same-page* and *distinguishing not-on-the-same-page* and the particular types of cognitive interplay characterised with these dimensions of *distinguishing*, will be explained in detail.

a. *Distinguishing On-The-Same-Page*

Distinguishing on-the-same-page is identification of types of cognitive interplay when de Bono's tools are utilised during a work team occasion, that are perceived as indicating the work team is on-the-the-same-page.

Each time a user of de Bono's tools personally utilises the tools with their thinking, simultaneously with one or more other people, therefore within an *in-mind-in-relationship* cognitive/relational context, a user experiences a heightened sensitivity to very distinctive cognitive interplay as illustrated by the comment:

I started to get it after a while, like when the tools are in play, the team's just generally operating differently, communicating with each other very differently, the way everyone operates with each other it's very different from normal teamwork. G2-1:4

A user's identification of cognitive interplay characterised with *distinguishing on-the-same-page* evolves from a general feeling that during work team occasions when de Bono's tools are used, the interaction between everyone involved is very harmonious. They experience individual team members bonding with one another very quickly, if not immediately and feel there is more collaboration and cooperation than they are

used to experiencing during new work team occasions, when people don't utilise de Bono's tools, as illustrated by the comment:

You can have an intellectual connection through using the tools with someone you might not even be friends with, in a way that is very different to being with normal teams, a much more cohesive relationship, and the team all-round is sharing information together, everyone's constructively communicating and being a group together, even if you hardly even know them or it's the first time you've met them.

G1-1:86

When everyone in a work team utilises the tools, users also experience a difference in the way people communicate with each other about the issues they are dealing with, as illustrated by the comment:

The conversation normally isn't as deep, that's a big difference when you use the tools, everyone understands the tools and you have a Purpose Focus, you actually go deeper into what you are trying to think about, whereas we are normally just seeking an answer, the quicker the better, with the tools all individuals go deeper, and I've actually found you get to a place where you know what you have to do, faster and richer, richer means for me more valuable and much deeper conversations about things, the communication is so much more relevant and just deeper. G9-1:46

Users also start identifying a different kind of individual participation and personal involvement, as illustrated by the comment:

I thought at first the de Bono tools were like the root cause analysis work I've done with teams, but then the root cause analysis work that I've done, there's certainly been disagreements and the sessions I've been involved with you always have that person that's dominant and we just continue down that way, the way they see it, I've realised this is just not-on-the-same-page and that's a real difference with de Bono's tools, when you use the tools you just don't get everyone going along with something for whatever reason or not caring about what's going on, everyone's into it, everyone's involved. G4-4:9

The more they utilise de Bono's tools with one or more other people, the more a user starts to differentiate particular types of cognitive interplay they consider indicate a work team is on-the-same-page during these work team occasions. These particular types of cognitive interplay are characterised as *collective purposing*, *collective aligning* and *collective equalising*.

Collective Purposing: A Particular Type of On-The-Same-Page Cognitive Interplay

With *collective purposing* a user of de Bono's tools feels, rather than dissecting a problem independently from any thinking that needs to be done about it, everyone puts their energy into using the same Purpose Focus at the same time as each other during a work team occasion. This results in the coalescing of everyone's attention to what needs to be achieved cognitively by the team rather than, what a user described as "*arms-length analysis of a topic of interest*". Users of de Bono's tools perceive this collective, purposeful cognitive interplay regarding problems or issues a team is dealing with, as distinctly different from work team occasions when no-one is using de Bono's tools, as illustrated by the comment:

The tools are particularly helpful in the respect of getting your problem definition right, you get to do group work, all together around what's the Purpose Focus for what we are trying to do, so you spend time on problem definition in a different way than normal. So, I think it's a real bonus with the tools getting that done in a way that, defining the problem is totally linked with what thinking we all have to do about the problem. We all know what our goal is with our thinking about an issue, not just analysing the issue to death. So, we all get to have the same thinking goal about a clearly defined problem, way before we've ever started doing the thinking that's needed for a possible solution. P4-1:16

More specifically, with *collective purposing* during formal work team meetings, users perceive a distinct difference in a work team's collective cognitive modus operandi and therefore their inter-personal interaction, in comparison to when de Bono's tools are not utilised during formal meetings. They believe this is because an agenda for a formal work team meeting when de Bono's tools are utilised, is a list of Purpose

Focuses for thinking about an issue, described by one user as “*a proper thinking agenda for everyone to follow*”.

A user therefore starts to perceive a traditional meeting agenda as less than useful, because it has no indication of what thinking needs to be achieved by a work team, with any item on the agenda. In comparison, when they experience a “*thinking agenda*” of Purpose Focuses, a user considers everyone understands what thinking is needed with every agenda item. Furthermore, they perceive this kind of meeting as more meaningful for everyone involved and therefore more likely to engender productive thinking, as illustrated by the comment:

All working around the idea of what our Purpose Focus is, well I actually see that being so different in a meeting, we collectively know what we really need to do with our thinking right up front to start off with, we understand exactly what we are here to talk about, and everyone has collective input into what we’re talking about, it keeps everyone on-the-same-page, that’s a big difference to not using the tools and being unproductive with our thinking. G6-5:27

Collective Aligning: A Particular Type of On-The-Same-Page Cognitive Interplay

With *collective aligning*, each time a user personally utilises the tools with their thinking simultaneously with one or more other people, they also perceive that both themselves and everyone else involved, has a clear understanding of where their personal actions fit with a work team’s collective thinking. Users of de Bono’s tools consider this gives everyone a feeling of confidence that the actions of individuals, after a work team occasion has concluded, are clearly aligned collective decisions and intent. They feel more confident that the problems or issues they all spend time thinking about during a work team occasion are going to be more effectively resolved because everyone’s on-the-same-page in regards to what needs to be achieved “*in the world outside our thinking time together*”, as also illustrated by the comment:

The outcomes are always so clear and dealt with differently than when you don’t have the tools, as much as we can we haven’t missed anything, because we’ve stuck to our Purpose Focuses and really thought everything through with all the de Bono tools we

have that are appropriate and as guided by our Focus, but also I think it's a big difference because of Parallel Thinking, because we've done it all with Parallel Thinking, everyone walks out of the room knowing exactly what they have to do, no-one walks out feeling upset that everyone just sat there and argued with each other and you don't reach any conclusions, because no-one's going to change anyone else's mind and it just ends up being a chest-beating exercise, with no clear goals or decisions or outcomes or any action aligned, truly aligned, with what the team knows the problem is and exactly what each of us needs to do after the meeting. P5-1:10-11

Collective Equalising: A Particular Type of On-The-Same-Page Cognitive Interplay

As explained in Section 6.2.2, with *interactive forwarding*, when they use the tools with one or more other people during the stage of Tooling-Up, users of de Bono's tools adhere to Parallel Thinking, which means rather than paying any attention to what might be right or wrong about the thinking that's going on, everyone concentrates on helping to increase the work team's thinking about an issue by constantly adding their thoughts to the thoughts of others. Therefore, with *collective equalising* a user perceives work team occasions when Parallel Thinking is adopted, as a different kind of work team environment from work team occasions when de Bono's tools aren't used. The work team environment they perceive as occurring only when everyone is using de Bono's tools during work team occasions, is experienced by users of as being completely egalitarian and cognitively safe, illustrated by the comment:

We all stand with each other, there's a greater acceptance of each other, we know we can challenge each other without threat, fear or favour, it makes for a very level playing field for people in a team and it takes all the status out of it, so that's the cohesion you get with the tools. P1-1:20

However, with *collective equalising* users specifically identify a different kind of egalitarian culture from what they experience during work team occasions when de Bono's tools are not utilised. While users experience most work teams they are involved with adhering to equal opportunity and workplace diversity protocols, when everyone is using Parallel Thinking during a work team occasion, they also perceive a different kind of equality. In addition to each person being treated equitably, users

perceive each person's ideas and thoughts as being treated equitably, regardless of who has the ideas or what their thoughts may be, as illustrated by the comment:

It doesn't matter whether we are level one or two, whether we like each other or have even ever met each other before, regardless of whether, we've got any biases, we've suddenly come into this objective state. It's something that crosses through all traditional barriers, be it gender, be it hierarchy, be it race or religion, because suddenly nothing is necessarily wrong per se with your thinking, and I think as well, it's regardless of your prior life experience or behaviour characteristics, your personality. Everyone's thoughts become part of the mix so it's a true intellectual, thinking collective, a true thinking collaboration rather than a transactional relationship, everyone's equal with their thinking. G3-3:73

As also explained in Section 6.2.2. with *levelled forwarding*, when de Bono's tools are utilised during work team occasions all cognitive contributions are treated as equally valid. A user of de Bono's tools perceives this practice as inducing a sense of trust between members of a work team that is different from everyone trusting that equity principles will be upheld during work team occasions. They consider the trust they experience during work team occasions when de Bono's tools are used, means all members of a work team feel "*safe as a thinker*", therefore significantly more secure about sharing their personal thoughts and ideas, compared to work team occasions when the tools are not used, as illustrated by the comment:

You actually have everyone withholding any judgement about your thinking or your ideas. Whatever ideas anyone has are totally valid, you are not looking at judging other people's thoughts and I mean judging them to be 'right', just as much as being somehow 'wrong', or not good enough, and no-one's looking at judging yours. It's an equal environment to do your thinking in, so it's a safe environment. I think the safety is an important one, that's what makes it safe. No-one ever wants to be scared about saying something because they think they'll get criticised and no-one wants to be bowled over and get embarrassed by someone gushing over their ideas, that never happens with Parallel Thinking. G9-2:57

b. *Distinguishing Not-On-The-Same-Page*

Distinguishing not-on-the-same-page is identifying types of cognitive interplay during a work team occasion when de Bono's tools are not utilised that are perceived as indicating a work team is not-on-the-the-same-page.

Given the regular use of de Bono's tools is not ubiquitous in every business organisation, users consistently participate in work team occasions when de Bono's tools are not utilised by a work team. Therefore, when change in their cognitive capability that is specifically caused by sustained *focussed levelling* and *levelled forwarding* is at the level of *moderate structuring*, a user of de Bono's tools perceives cognitive interplay which they feel only occurs during work team occasions when de Bono's tools are not utilised and which they never perceive during work team occasions when the tools are used, as illustrated by the comment:

I go to a meeting or talking with others, and there's no use of de Bono's tools and none of the Focus, no Parallel Thinking, none of it's there, that's a really big difference, everything's so ad hoc, um, maybe it's more like, tangential, everyone's heading off on tangents and soon we are so off from where we should be with our thinking, sprawling, sprawling's a good word for it. G9-5:30

The more a user continues to experience *cognitive purposing*, *collective aligning* and *cognitive equalising* during work team occasions when de Bono's tools are utilised, the more there is a concomitant shift in their awareness of particular cognitive interplay during work team occasions when de Bono's tools are not utilised. Their general awareness that a work team occasion when de Bono's tools are not utilised is different from a work team occasion when the tools are utilised, shifts however to identifying particular types of cognitive interplay that they perceive as indicating a work team is not-on-the-same-page. These particular types of cognitive interplay are characterised as *polarising*, *powering*, *holding-back* and *bouncing-around*.

Polarising: A Particular Type of Not-On-The-Same-Page Cognitive Interplay

With *polarising* a user of de Bono's tools perceives one or more people placing their thoughts, ideas, comments or points of view, in direct opposition to each other during work team occasions when the tools aren't utilised, as illustrated by the comment:

If you come up with a great idea and you say that idea and the person, in their mind has decided what's wrong with that idea, so they say things that block the idea and stop that idea building, because they've already decided in their head that the idea doesn't work, sometimes quietly but it's still blocking, if there's no de Bono's tools being used and you counteract their blocking, well pretty soon you find yourself locked into a back and forth opposition. P6-1:13

Furthermore when they perceive *polarising* a user of de Bono's tools does not consider the work team is on-the-same-page because they experience each member of the work team operating as an isolated thinker, as illustrated by the comment: "*when you are not using the tools and people are adversarial every person is an island*". When people place themselves in direct opposition to each other, users of de Bono's tools also identify a variety of adversarial communication styles, ranging from people being very polite and subtle while positioning in opposition to each other; respectful while adhering to the rules of adversarial debate, through to being overtly argumentative or aggressive. Users also perceive there is little, or no willingness, to abandon *polarising*. Therefore, rather than experiencing people "*standing next to each other*" and "*moving forward together*" with their thinking, as they have become accustomed to when a work team utilises de Bono's tools, users perceive what they consider to be a dysfunctional work team environment, as illustrated by the comment:

There's a lack of understanding of teamwork, particularly a team that's not applying and using the tools, that's when we all fall back to silos, paddocks and protectionism with our thinking and we're always looking to blame, there's a lot more blame culture that comes out. P1-1:37

Also, regardless of whether taking an opposing point of view with one or more other people occurs anywhere on the spectrum of interpersonal communication, between

extreme politeness through to extreme aggression, when de Bono's tools are not utilised during a work team occasion and a user perceives *polarising*, this indicates to them a non-productive thinking environment, as illustrated by the comment: "*sooooo much time wasting with no thinking together*".

Powering: A Particular Type of Not-On-The-Same-Page Cognitive Interplay

With *powering* a user of de Bono's tools perceives one or more people participating in a work team occasion when the tools are not utilised, positioning their thoughts, ideas, comments or points of view as being more legitimate, more valuable or more correct than everyone else involved. They identify this way of operating during a work team occasion when de Bono's tools are not utilised as a form of hierarchical cognitive interplay. Furthermore, they not only have a general perception of what they consider to be hierarchical cognitive interplay, they differentiate specific kinds of *powering*, all of which they perceive as indicating a work team is not-on-the-same-page. These particular types of hierarchical cognitive interplay are characterised as *expert powering*, *position powering* and *social powering*.

Powering: Expert Powering

While a user of de Bono's tools acknowledges that personal expertise can be very valuable during work team occasions, particularly within a decision-making context where technical knowledge is required, if expertise is used by someone as the rationale for their thoughts and ideas being more legitimate than someone else's, they perceive this as indicating a work team is not-on-the-same-page and therefore unproductive, as illustrated by the comment:

We have a collective group of people and a particular subject, so one person might be overwhelmingly positive about it and say "this is how it works" because they have a lot of knowledge in a particular area, then someone else is overwhelmingly negative about it and say "it will never work because of this..." because they think they have more knowledge than the other person, and we get nowhere in our meeting. G4-5:67

Also, with *expert powering*, regardless of whether someone may or may not legitimately be able to claim their thoughts and ideas are more valuable or more pertinent than those of one or more other people, a user of de Bono's tools perceives this as unproductively influencing the thinking of other people, as illustrated by the comment:

Dominant voices from people who think they are more expert than others become more dominant, quiet voices become quieter and what happens, you get this confluence of the loudest voice, everyone goes with that, not knowing whether it's the right thing or the wrong thing. P2:13

When no-one is using de Bono's tools during a work team occasion, users also perceive expertise or experience used as a strategy by people, with or without expertise, to legitimise their point of view over and above that of others. Often users perceive this as being accompanied with persistent arguing, ranging once again from politely subtle to aggressively overt, against a less rationale, equally rational or more rational position. Therefore, when users perceive the type of hierarchical cognitive interplay characterised with *expert powering*, they feel it always involves the domination of a personal opinion, regardless of whether that opinion is useful or appropriate to the issue at hand. Furthermore, from a user's perspective this specific type of hierarchical cognitive interplay gets particularly palpable when a work team is not using de Bono's tools, because "*the biggest ego in the room*" drives what is occurring during the work team occasion, as illustrated by the comment:

You have that person when someone says something and that person goes 'nah, nah, nah', this is what the problem is', you have the know it alls, they say 'this is it, this is the problem and this is how we fix it', other people eventually back off and are pushed to the side and forgotten as we continue down the way following the know it all.

G4-3:9

Powering: Position Powering

When a user of de Bono's tools perceives the type of hierarchical cognitive interplay characterised as *position powering*, they consider this to be the domination of one

person's ideas over the ideas of others because of the formal role they have within an organisation. This includes for example, executives, managers and supervisors engaging in dominating strategies, not because they may have a dominating personality, rather, because they feel they have the authority to do so. When they experience this kind of interpersonal domination during work team occasions when de Bono's tools are not used, regardless of how collaborative and open a manager may be to other people's ideas, a user feels everyone involved is obliged to conform with the mores associated with formal hierarchical structures of authority. Users of de Bono's tools consider this includes people involved in a work team occasion when the tools are not utilised, unproductively re-enforcing a superior's ideas or thoughts as being most appropriate compared to the ideas of others, as illustrated by the comment:

From my experience it tends to be very hierarchical, thought processes are based on someone's position. So, if an executive manager has a thought on the way things are done, most of the time people are expected to, and do toe the line on that. G2-2:50

Powering: Social Powering

When a user of de Bono's tools perceives the type of hierarchical cognitive interplay characterised with *social powering*, they consider this to be the domination of one person's ideas over the ideas and thoughts of others because of the informal interpersonal connections they have within an organisation or specifically within a work team. Users feel, regardless of formal hierarchies in organisations, interpersonal relationships and personal connections exist. While informal and often implicit rather than overt, nevertheless these interpersonal connections result in one person's thinking unproductively dominating the thinking of others during work team occasions when de Bono's tools are not utilised, as illustrated by the comment:

There's always a social hierarchy going on, that's about relationships, like who's best buddies with each other and who gives a shit and who doesn't about someone else's ideas, because of the social relationships, this can mean people take over and dominate, they start steering the ship when there's no de Bono tools. G5-1:21

In addition to differentiating specific types of cognitive interplay during work team occasions when the tools are not utilised that are characterised as *expert powering, position powering and social powering*, when a work team utilises de Bono's tools, users consider this prevents these specific types of cognitive interplay from occurring, as illustrated by the comment:

The thing is, with the tools when you're in a meeting and such, as long as you stick to the Focus, use the same tools as everyone else, the big difference is having no hierarchy, not depending on a manager or a so called leader, or a more dominant personality, with fear of being an independent thinker, there's a shift from being dependent or in a compromised position, to being completely free to have your own thoughts, there's no hierarchy when the tools are in play. P1-2:11

Holding-Back: A Particular Type of Not-On-The-Same-Page Cognitive Interplay

With *holding-back*, a user of de Bono's tools perceives both themselves and other people who are participating in work team occasions when de Bono's tools are not utilised as often restraining from contributing their own thoughts, ideas, opinions or point of view. Further to this, users consider there are several reasons why they, and other people, refrain from sharing their ideas during work team occasions when the tools are not utilised. Firstly, they consider individuals do not voice their opinion because they are not confident in their ability to make a worthwhile contribution to the meeting, discussion or conversation, as illustrated by the comment: *You feel uncomfortable voicing your ideas, ah you feel that um, that your fellow colleagues um, maybe are not wanting to hear what you've got to say. G2-2:18*

Furthermore, users consider this feeling of not being worthy enough to contribute one's personal thoughts, can stem from being in a lower level position within an organisation and believing this position does not carry the same weight as others who are more capable of making a worthwhile contribution to a work team's discussion or conversation. Also, if a user of de Bono's tools feels their job within an organisation is "*operational*" or "*not as complicated*" as the roles and responsibilities of others in a work team, when no-one is using de Bono's tools during work team occasions, they

feel their thoughts and ideas are not worthy enough to share, if the problems or issues being considered by a work team are “*strategic or policy stuff*”. With *holding-back* however, users of de Bono’s tools also perceive individuals involved in a work team occasion when the tools aren’t being used, refraining from sharing their thoughts, ideas, opinions or point of view regardless of their formal position or responsibilities, as illustrated by the comment:

I’ve seen our Chief Executive being grandstanded down by one of his his own Corporate Exec members and everyone, all the other Corp Ex’s at the meeting knows that person will talk the loudest, says the most, and they’re just too unsure of themselves to put their thoughts forward. G5-1:64

As also illustrated by this comment, users experience the cognitive interplay characterised as *holding-back*, being employed by individuals to deal with *powering* during work team occasions when de Bono’s tools are not utilised. Individuals who have consistently encountered put-downs or dominating opinions during work team occasions when the tools aren’t used, refrain from providing their own ideas and thoughts, as illustrated by the comment:

If you feel, if you say something and a particular person is going to say ‘that’s silly’ or not a good idea, you’re not even going to bother. If you have the feeling that one particular person makes the decision on what they want. They may listen to you, but they still know in their mind that they’re going to go with well, whatever, you think, Why bother? G2-5:29

Whatever the motivation is for individuals to engage in cognitive interplay characterised as *holding-back*, users of de Bono’s tools always distinguish this type of cognitive interplay, as only occurring during work team occasions when de Bono’s tools are not used. Further to this, they believe the cognitive interplay characterised as *cognitive equalising* during work team occasions when the tools are used, establishes a work team environment where people feel cognitively safe, and therefore freely contribute their thoughts and ideas no matter what they are, rather than keeping their thinking about a problem, issue or task private.

Bouncing-Around: A Particular Type of Not-On-The-Same-Page Cognitive Interplay

Users of de Bono's tools perceive the type of cognitive interplay characterised as *bouncing around*, as having none of the characteristics of *polarising*, *powering* and *holding-back*. They don't experience any adversarial positioning, dominating thinking or people restraining from contributing their ideas. Nevertheless, perceiving *bouncing around* during a work team occasion when the tools aren't utilised, still indicates to them a work team is not on-the-same-page. This is because, compared to when the tools are utilised, with *bouncing around* users perceive no clarity of purpose or direction for the work team's collective thinking, as illustrated by the comment:

When there's no tools being used and no proper Focus for anyone to hold onto more often than not the meeting is directionless. Thought is unfocused so you can jump around from one topic to another, you can bring in other topics, you can get completely side-tracked and find at the end of the meeting that you've not resolved anything.

G4-2:6

Furthermore, during work team occasions when de Bono's tools are not utilised and users experience the type of unfocused cognitive interplay characterised as *bouncing-around*, they differentiate specific kinds *bouncing-around* as particular types of unfocused cognitive interplay, all of which they perceive as indicating a work team is not on-the-same-page. These specific kinds of unfocused cognitive interplay are characterised as *ad hoc cogitating* and *going-off-on-tangents*.

Bouncing Around: Ad Hoc Cogitating

When users of de Bono's tools are involved in work team occasions and de Bono's tools aren't used, they experience these occasions, like occasions when de Bono's tools are used, as being devoid of adversarial thinking. They perceive everyone being very engaged, sharing their ideas, valuing the ideas of others, not blocking people's ideas and keen to contribute new and different ideas without feeling insecure about sharing their thoughts. However, even when this occurs during work team occasions when the tools are not utilised, users of de Bono's tools still perceive work teams as not-on-the-same-page. This is because they always experience the particular cognitive interplay

characterised as *ad hoc cogitating*, whereas they never experience this particular type of cognitive interplay when a work team utilises the tools.

Specifically, with *ad hoc cogitating*, users are constantly perceiving no collective understanding of what everyone needs to achieve with their thinking about any issue they need or want to deal with. Therefore, while a work team has come together to collectively concentrate on one or more issues, when these issues are being dealt with during the meeting, discussion or conversation, users perceive everyone's thinking abruptly changing, to contemplate a completely different and therefore disparate issue to the one everyone had been contemplating. In addition, while a user of de Bono's tools perceives everyone enjoying the spontaneity and sense of creativity this entails, they also perceive a great deal of animated talking about an issue without any collective understanding of what anyone needs to achieve with their thinking. This indicates to a user of de Bono's tools the work team is not only, not-on-the-same-page, but also highly unproductive, as illustrated by the comment:

Everyone's extremely enthusiastic, we want to explore every single option as much as possible, we have open space for input and equal rights for input so conversations can get absolutely right off track and right away from the original intention of why the conversation was set up in the first place. So, for example, we met to talk about sharing roles between x and y. Because one of the staff of y was doing quite a lot of work for x and because of the split between x and y as enterprises we need to start charging y for the work x is doing. That's how it started, it turned into ideas on how we could build a webpage and improve the website for goodness sake! People are generating ideas, which is a good thing, but unless it's done about what you were there to think about in the first place, what's the point? G6-1:10

Bouncing Around: Going-Off-On-Tangents

Even if people involved in work team occasions when de Bono's tools aren't used, have a good idea of the topic they are supposed to be concentrating on, with *going-off-on-tangents* a user experiences the type of unfocused cognitive interplay that indicates to them a work team is not-on-the-same-page. With *going-off-on-tangents* users of de Bono's tools perceive one, or more, or all people involved in a work team occasion

when de Bono's tools are not used, very quickly moving off the topic they were concentrating on and simultaneously everyone's thinking going into many different directions, as illustrated by the comment:

If, if I could draw what happens, it would be like a picture of a bubble, this is what you have in a normal meeting without de Bono's tools and in the bubble that's what you should all be concentrating on, it's in that bubble, but nup, everybody's like out here, outside the bubble, somewhere else, one or two come back then, pop back out, come back in and then pop back out, but mostly everybody's anywhere else but in that bubble. G5-1:60

With *going-off-on-tangents*, a user also perceives everyone's thinking meandering without clear intention, following a stream of collective thought, that while still 'on topic', is not anchored to any understanding of what the work team needs to achieve with their thinking about the topic, as illustrated by the comment:

When you are using de Bono's tools you are able to identify those things that aren't quite on-line with where you are heading and put them aside. Whereas normally we just follow the natural evolution of issues coming up, so you might head off all over the place, and while they may be important so not exactly ad hoc, they are, more like tangential, like someone will say 'There's this other satellite and we could use it' and someone will say 'Oh yeah, we could use that satellite' and someone will say 'Well there's this property we could do this thing on ...', then someone else 'Oh yeah that's a great thing because that would help ... so and so' and so soon you're kind of over here with the issue you're thinking about, when you need to be over there, sprawling is a good word for it. G4-5:24

(3) Temporal-Based Contexts of Distinguishing

Temporally, *distinguishing on-the-same-page* and *distinguishing not-on-the-same-page* occur concurrently. This is because, within the substantive area of work teams operating in business organisations work team occasions are ubiquitous, whereas the utilisation of de Bono's tools is not, therefore users of de Bono's tools regularly

participate in work team occasions when the tools are never utilised, while at the same being a member of a work team that utilises the tools.

The types of cognitive interplay characterised as *collective purposing*, *collective aligning* and *collective equalising*, that users of de Bono's tools perceive as only occurring during work team occasions when the tools are utilised, are also perceived by users as all occurring each time a work team utilises the tools. In comparison, users do not perceive the types of cognitive interplay characterised as *polarising*, *powering*, *holding-back* and *bouncing-around* as all occurring, each time a work team doesn't utilise the tools. Also, they never perceive *polarising*, *powering* or *holding-back* occurring simultaneously with *bouncing-around*. Nevertheless, and most significantly, a user of de Bono's tools always perceives at least one of these types of cognitive interplay during a work team occasion when de Bono's tools are not utilised.

6.3.3 *Angst-ing*

Angst-ing is emotional stressing simultaneously occurring with *distinguishing not-on-the-same-page*.

When Tensing emerges, the more a user of de Bono's tools utilises the tools with other people during work team occasions, the more they start reacting to cognitive interplay, characterised as *polarising*, *powering*, *holding-back* and *bouncing-around*, at times when they are involved with work teams that don't utilise the tools. Furthermore, this reacting is always emotionally charged and always negative, as illustrated by the comment: *No-one is on-the-same-page, everyone's all over the place with their thinking when the tools aren't use and it, well to be honest, it completely drives me bonkers.* G4-2:4

There are however levels of tolerability with *angst-ing*. These levels of tolerability are characterised with two dimensions of *angst-ing*, these being *mild angst-ing* and *extreme angst-ing*.

Mild angst-ing and Extreme Angst-ing.

Mild angst-ing is tolerable emotional stressing simultaneously occurring with *distinguishing not-on-the-same-page*.

The more they perceive *collective purposing*, *collective aligning* and *collective equalising*, the more a user of de Bono's tools concomitantly perceives the types of cognitive interplay characterised as *polarising*, *powering*, *holding-back* or *bouncing-around* indicating to them a work team they are involved with, is not on-the-same-page, because it is not utilising de Bono's tools. Furthermore, this accumulating experience of *distinguishing not-on-the-same-page* during work team occasions when de Bono's tools are not utilised, catalyses a negative emotional response every time a user is involved with a work team that doesn't utilise the tools, as illustrated by the comment: *I'm starting to get fed up with meetings where the tools aren't used, everyone's thinking's all over the place, it's awful.* FG1-3:78

While *mild-angst-ing* characterises, the emotional distress catalysed when a user of de Bono's tools perceives *polarising*, *powering*, *holding-back* or *bouncing-around* during a work team occasion when de Bono's tools are not utilised by a work team, this distress is always at a tolerable level. However, as with other dimensions of the properties of Tensing that characterise different levels or degrees, what constitutes a 'tolerable' level of emotional distress is always relative to each individual user.

Extreme Angst-ing

Extreme angst-ing is intolerable emotional stressing simultaneously occurring with *distinguishing not-on-the-same-page*.

With *extreme angst-ing*, when a user experiences any of the types of cognitive interplay characterised with *distinguishing on-the-same-page* their response becomes explicitly emotional and very negative, as illustrated by the comment:

You get shifts in perception because you all clarify the actual Focus you need together and then you get appropriate outcomes, such better outcomes because we all know

what direction we are taking, what our thinking goals are, and you end up with outcomes that achieve those goals, not something spurious, outcomes that work, like they are useful and meaningful to everyone, and then working with people that don't use the tools, it's just so damn frustrating, I just want to get out of there. P3-1:4

Extreme-angst-ing therefore characterises emotional distress catalysed when a user of de Bono's tools perceives *polarising, powering, holding-back* or *bouncing-around* during a work team occasion when de Bono's tools are not utilised by a work team, that is always at an intolerable level. As with *mild angst-ing* however what constitutes an 'intolerable' level of emotional distress is always relative to each individual user.

6.3.4 *Fiddling*

Fiddling is self-initiated attempts to stop the types of cognitive interplay that always indicate a work team is not-on-the-same-page, from occurring during a work team occasion when de Bono's tools are not utilised.

In an effort to alleviate *extreme angst-ing* when de Bono's tools are not used, without encouragement or help from anyone else, users start experimenting with ways to prevent, what they perceive as *polarising, powering, holding-back* and *bouncing-around*, from occurring during these work team occasions. There are however different forms of self-initiated experimentation, characterised with two dimensions of *fiddling*, these being *informal fiddling* and *formal fiddling*.

Informal Fiddling

Informal fiddling is self-initiated, spontaneously reactive attempts to stop the types of cognitive interplay that always indicate a work team is not-on-the-same-page, from occurring during a work team occasion when de Bono's tools are not utilised.

With *informal fiddling* there is no forethought or planning undertaken, and therefore unexpectedly occurs any time a user of de Bono's tools is involved in a work team meeting, discussion or conversation and the tools are not being utilised. Essentially a user impulsively reacts on the spur of the moment to the escalation of types of

cognitive interplay they are experiencing as emotionally disturbing, as illustrated by the comment: “*I suddenly started on about Hats to stop the arguing*” and as further illustrated by the comment:

I'm sitting in a meeting and getting more and more frustrated so I just jumped up, went to the whiteboard and said 'look we need a proper focus ok and this is how we're going to get it' and started facilitating everyone to develop a Purpose Focus, I didn't care whether they knew anything about de Bono's stuff, I just said 'we're going to use the Purpose Focus tool, ok, it's a de Bono tool and it'll make our thinking better, ok!', that's what I said. FP5-1:40

Formal Fiddling

Formal fiddling is self-initiated, premeditated attempts to stop the types of cognitive interplay, that indicate a work team is not-on-the-same-page, from occurring during a work team occasion when de Bono's tools are not utilised.

With *formal fiddling* a user of de Bono's tools reacts to experiencing the types of interplay they perceive as indicating a work team is not-on-the-same-page by pre-determining how they are going to introduce the tools to other people, to explicitly try prevent *polarising*, *powering*, *holding-back* or *bouncing-around* from occurring during an up-coming work team occasion. Therefore, with *formal fiddling* in order to resolve their concern about always experiencing emotional stress each time they are involved with a work team that does not utilise de Bono's tools during work team occasions, a user takes a more organised approach with their efforts to resolve the not-on-the-same-page problem. However, although they are trying to introduce a work team to de Bono's tools according to a plan, they have devised prior to a work team occasion occurring, with *formal fiddling* a user considers their attempts to alleviate their emotional stress as both reactive and highly experimental. Therefore, despite their pre-planning, they feel they are “*going in cold*” with their attempts to get a work team on-the-same-page, as illustrated by the comment:

I was getting so fed up with all the negativity and never getting anywhere past all the problems with things, I worked out a Purpose Focus, just with one issue and a Hats

sequence before our weekly meeting and went into the meeting with it, you know, just to give it a go, try it out and see if I could make the meeting better, not so chaotic and negative. FG1-3:12

6.3.5 Structuring

As explained in Section 6.2.3 *structuring* is changes in cognitive capability with the utilisation of de Bono's tools. As also explained *structuring* consists of three sequential phases, these being *structuring new thinking*, *structuring familiar thinking* and *structuring nuanced thinking*. Furthermore, particular changes in cognitive capability are characterised with particular elements of *structuring*, these being *cognitive languaging*, *cognitive disciplining*, *cognitive focusing*, *cognitive levelling* and *cognitive listening*. The stability of these changes is characterised with five dimensions of *structuring*, these being *weakest structuring*, *weak structuring*, *moderate structuring*, *strong structuring* and *robust structuring*.

When unabated *formal fiddling* during Tensing, causes the transition of *moderate structuring* to *strong structuring*, *structuring new thinking* transitions to *structuring familiar thinking*. This Section of Chapter Six will explain *structuring familiar thinking*; changes in cognitive capability during Tensing, as characterised with the elements of *structuring*, and the cognitive/relational contexts within which these changes occur during Tensing.

(1) *Structuring Familiar Thinking: The Second Phase of Structuring*

Structuring familiar thinking, as the second phase of *structuring*, specifically occurs within an *in-mind-in-relationship* context. As explained in Section 6.2.2 (6) this cognitive/relational context is an individual user utilising a de Bono tool or tools when one or more people, during a work team occasion the user is involved in, are privately utilising the same tool or tools at the same time as the user. Unlike *structuring new thinking* during Tooling-Up, changes in cognitive capability as characterised with *cognitive languaging*, *cognitive disciplining*, *cognitive focusing* and *cognitive levelling* are no longer unexpectedly unique with the *structuring familiar thinking* phase of *structuring* during Tensing. Furthermore, with *structuring familiar thinking* during

Tensing, the level of consistency of changes in cognitive capability are at a level consistency characterised with *strong structuring*. Changes in cognitive capability as characterised with *cognitive languaging*, *cognitive disciplining*, *cognitive focusing* and *cognitive levelling* during Tensing, are therefore always consistent and always stable.

a. *Cognitive Language-ing with Structuring Familiar Thinking*

With *strong structuring* during Tensing, changes in cognitive capability, characterised by *cognitive languaging*, are consolidated and improved. However, with *cognitive languaging* occurring more specifically within an *in-mind-in-relationship* cognitive/relational context during Tensing, users get more adept at articulating their thinking in unison with others involved in work team occasions when de Bono's tools are utilised, as illustrated by the following context:

We now have a meta-language to talk about process or to approach a task with our thinking, it's not the language of content or doing our job or jobs or a project, it's the language of 'how do we approach this with our thinking' so we've built a meta-language, a thinking language we all share. P2-1:25

A user also experiences both consolidation and further development of their personal general thinking in a way that, they feel, enhances the cognitive interplay during work team occasions when everyone is utilising the tools, as illustrated by the comment:

There's a common language that I guess I now use in a structured way when I'm with other people who know the tools, even when we are just working out what tools to use, I use words like, 'we need to explore with our thinking' or 'this needs evaluation type thinking', it's deliberately communicating about my, our thinking and the important thing is now it's an explicit language, nothing's implicit about the way I'm talking about my thinking with other people who know the tools. P3-1:7

With *strong structuring* during Tensing, *languaging operational thinking* is also consolidated and further developed when a user is utilising de Bono's tools with one or more other people. With any tool a user utilises during a work team occasion, whether the tool is well known to them or not, they consistently engage in the practice

of operacy. Therefore, any lexicon associated with the utilisation of a de Bono tool, is consistently integrated with the practical utilisation of the tool, as illustrated with the comment:

I'm thinking but sort of talking inside my head at the same time like 'I need to use White Hat thinking', now 'what do I know?' about, um, the issue I'm focusing on, 'what would I like to know?', 'what do I need to know?', I talk myself through those actual questions you use with White Hat thinking as I'm writing down my thinking with White Hat, while other people are doing the same and then of talk about my White Hat thinking when we share our thinking. G3-1:6

b. Cognitive Disciplining with Structuring Familiar Thinking

With *strong structuring* during Tensing, changes in cognitive capability characterised with *cognitive disciplining*, like changes characterised with *cognitive languaging*, are consolidated and further developed. A user intentionally and consistently improves their ability to deliberately adhere to specific processes and principles associated with the utilisation of de Bono's tools with one or more other people, as illustrated by the comment:

You have structure, form and shape to what you are doing with the tools when you are thinking along with others and you have to just keep sticking to the way the tools have to be used, it's making sure that structure form and shape holds everything together, that, that ability doesn't come easily you have to work at it, I've had to concentrate to work at it. P2-1:14

When they are utilising de Bono's tools with their thinking at the same time as utilising the tools with other people, users also experience an improvement in their ability to integrate several tools from different tool sets in an organised and logical fashion, as illustrated with the comment:

I'm getting used to mixing and matching the tools, not jumbling them up but knowing how to use them together with other people in the most proficient and organised way, sometimes I get a bit hmmm, 'what am I doing?', but most of the time pretty organised

now and pretty much always using them as they should be, probably because I keep working at it. P6-2:73

c. Cognitive Focusing with Structuring Familiar Thinking

With *strong structuring* during Tensing changes in cognitive capability characterised with *cognitive focusing* are also consolidated and improved. Users consistently perceive the correct utilisation of de Bono's Purpose Focus tool during work team occasions as being valuable, and therefore put effort into improving their utilisation of this tool, as illustrated by the comment:

Yes, there is a direct correlation between using the thinking tools, getting focused and knowing what I want to achieve with my thinking and what others wanted to achieve, with a Purpose Focus. Like today we all had the same Purpose Focus in the meeting and stayed with it, with all the thinking we did. I am so sure about the use of Purpose Focus now, how it's just holds everyone's thinking together and keeps us all on the same page, so I just keep trying to improve my own ability to do that. FG1-3:78

Users also consolidate and improve the way they define a focus for their thinking with de Bono's Purpose Focus tool and consistently keep the direction of their thinking focused. With careful utilisation of the Purpose Focus tool, a user keeps increasing their ability to move from one part of a Purpose Focus they have defined to another part. They also concentrate on diligently redefining what they need to achieve with their thinking, until they are satisfied, they have identified the underlying issue that needs to be dealt with. Also, rather than being confused and muddled with what they want to achieve with their thinking, when they are utilise de Bono's Purpose Focus tool with other people, users are now capable of holding their focus for as long as required, as illustrate by the comment:

I'm getting good at keeping an eye on the point of my thinking and at the same time the direction my thinking needs to go in and sticking to the point and the direction which I've got sorted out with my Purpose Focus, when I'm choosing and then using a whole lot of tools to get there with other people. FG1-7:33

d. Cognitive Levelling with Structuring New Thinking

With *cognitive levelling* during Tensing users of de Bono's tools also consolidate and improve their adoption of Parallel Thinking. They now consistently perceive the adoption of Parallel Thinking during work team occasions as being valuable, as illustrated by the comment:

That idea of Parallel Thinking and working around you know, all together because you are in parallel and we start off, by saying 'ok what are we really needing to do, like with our thinking?' Everyone has collective input and I'm really starting to get into it with everyone, it keeps me and everyone else on the same page, and you know, in the direction we all want to head with our thinking together and that's the first part of it, like the Blue Hat side of it, what we all want in common to be thinking about and me, I'm part of that, not standing outside of it and nobody is sort of above anyone else, we're all in it and equal. G4-3:34

Also, with *cognitive levelling* now occurring during the phase of *structuring familiar thinking* and with the consistency of specific cognitive changes characterised with *cognitive levelling* at the level of *strong structuring* during Tensing, users no longer engage in *polarising*, or *powering* when they are utilising de Bono's tools with one or more other people. Therefore, they consistently refrain from judging other people's thoughts or ideas. Rather than putting effort into working out what might be wrong with someone's contribution, their ability to consistently add to other people's ideas is now consistent when de Bono's tools are utilised, as illustrated by the comment:

I'm aware of growing my ability to withhold judgement and use movement, move forward by building on other people's ideas, not putting up a roadblock with my judgement about something someone's come up with. P3-1-57

(2) Cognitive/Relational Contexts of Structuring Familiar Thinking

The *structuring familiar thinking* phase of *structuring* during Tensing, like the *structuring new thinking* phase during Tooling-Up, occurs within the *thinking space*

cognitive/relational context, and more particularly within the *in-mind* cognitive/relational context and the *in-mind-in-relationship* cognitive/relational context. The *in-mind* cognitive/relational context being, an individual user of de Bono's tools privately utilising the tools and the *in-mind-in-relationship* context being, an individual user privately utilising a tool or tools when one or more other people during a work team occasion the user is involve in, are privately utilising the same tool or tools at the same time as the user. As with the *structuring new thinking* phase during Tooling, with the *structuring familiar thinking* phase, not all users of de Bono's tools utilise the tools privately outside the organisational context of work team occasions. However, for all users, the *structuring familiar thinking* phase during Tensing is a phase of consolidation and improvement of personal cognitive capability with the utilisation of de Bono's tools, within the *in-mind-in-relationship* cognitive/relational context, as illustrated by the comment:

When I was working with D, we got into the room, I put the Purpose Focus up on the white board and we were immediately focused it felt effortless and empowering, like we felt like we were um, in control, together, but, I realised that I could only put the focus up and work like that with him because of all the work I'd done learning how to use the tools and if I wanted good meetings like that, good work like that with other people and not be so, angst about working with other people who don't have a clue about the tools, I had to keep getting better at using the tools myself, now I need to keep using them, you know, keep using them in situations like with D to build my skills to use them better with other people. G4-4:18-19

6.3.6 Rationalising

Rationalising is adopting plausible reasons for abandoning *informal fiddling*. Furthermore, *rationalising* is caused by the escalation of *extreme angst-ing*.

When a user perceives the types of cognitive interplay characterised with *polarising*, *powering*, *holding-back* or *bouncing-around* during work team occasions when de Bono's tools are not being utilised and their response is explicitly emotional and negative, if this personal tension is too difficult for them to deal with, they make no further effort to self-initiate any attempts to prevent these types of cognitive interplay

from occurring. Essentially this means they stop trying to resolve their main concern as users of de Bono's tools within the substantial area of business organisations. Further to this, they start developing a rationale for why they are unable to resolve their concern about experiencing emotional strain each time they are involved with a work team that does not utilise de Bono's tools, as illustrated by the comment:

I don't think I'm ever going to be able to deal with the problem of being frustrated with people not using the tools, but I think at this point I'm not willing to rock the boat, you know upset my relationships maybe and I think going out and doing something that's not going to be followed up, I think that will put other people in a perhaps difficult position, I also think perhaps now I've tried to help people use the tools just to have better meetings and such, I'm not good enough with the tools to do it in such a way that it's going to be effective and embraced. G1-2:66

With *rationalising* users adopt at least one of three core rationales for not trying to resolve their main concern as users of de Bono's tools, these being the rationale of not enough time, the rationale of not enough skill and the rationale of not enough authority.

The Rationale of Not Enough Time

When a user adopts the rationale of 'not enough time', as their justification for not making any further attempts to resolve their main concern, they reason they cannot resolve their concern because they cannot devote any time to the task of getting work teams on-the-same-page, as illustrated by the comment:

There's no recognition that we're off Focus or don't even have one, you know, it's all action, it's all about action and well I'm finding it very very hard to get people into the notion that our meeting is a thinking space, it's not a doing space and really I just don't have any time with my work load to try and work out how to get people to use the tools, just not enough time to work out how do I get them to use the Hats and understand all about having to have Blue Hat thinking and a Purpose Focus, when I'm always having to be in action-mode myself with my work, I just DO NOT have the time. FG1-2:66

The Rationale of Not Enough Skill

When a user adopts the rationale of ‘not enough skill’, as their justification for not making any further attempts to resolve their main concern, they reason they cannot resolve their concern, because they do not have the level of expertise, knowledge or skill in utilising the tools they believe is required to help work teams get on-the-same-page. Even though a user consistently feels frustrated, annoyed or worried each time they have to deal with work teams they perceive as not on-the-same-page because de Bono’s tools are not utilised, as illustrated by a further comment from the user who commented “*a meeting without de Bono’s tools is visibly and psychologically disjointed*”³¹:

I don’t really introduce the tools to anyone anymore, I tried quite a few times and they are there and I always get enthusiastic when I’m using them with people who know how to use them, because I always see how amazing the tools are when you use them with other people but there’s just something that’s out of my reach, like something over there, like I haven’t got over, like I think I always need help to use them, I don’t feel I know how to use them properly, I really know how valuable they are because I’ve used them so many times with people who know how to use them, I just don’t feel confident that I’m using them fully, properly, I don’t know why, it’s like a block stopping my confidence and that’s why I just don’t, introduce them to anyone that’s doesn’t know them, even if this means putting up with terrible meetings without the tools. FP7-2:43

The Rationale of Not Enough Authority

When a user adopts the rationale of ‘not enough authority’ as their justification for not making any further attempts to resolve their main concern, they reason they do not have permission to introduce de Bono’s tools to anyone working in their organisation. Therefore, they believe they are powerless to do anything about helping people utilise de Bono’s tools, even when they personally feel the tools are valuable. Also, contrary

³¹ See Section 6.1.

to what might be expected this rationale does not appear to be only adopted by people at lower levels within an organisation, as illustrated by the comment:

Everything was going fine when X was my Director, so supportive of me using the tools with all my teams, with individuals, everyone in my Unit, then she left and it's like going backwards, I've suddenly gone from having been allowed to make things happen with everyone getting to learn the tools and use the tools and a whole new world and then suddenly all that going, it's like someone has lifted me up and put me back into my old ... (crying) ... sorry, sorry ... in my old world and ... I just don't have the power as a Manager, to go up against well, being told like I was the other day by my new Director 'I will NOT be doing that', she meant using de Bono's tools. I didn't know how to react to that, I think it's like, 'Well are you telling me I can't do that? Or is that just something you don't agree with and I can keep helping people to use them, get people to use them in meetings and so on?'. So now, well it might be a big excuse, but I think I've moved into this mode of 'Am I taking a big risk?' I don't have the power to do what I want to do with the tools and my teams, I'm going to have to pull back, I just don't have the power to buck the system. G1-1:141-142

Whatever rationale a user of de Bono's tools has, for not attempting to resolve their main concern, their reasoning is not correlated with their position or responsibilities within an organisation, neither is it correlated with the length of time they have been utilising de Bono's tools, how often they utilise the tools or whether they are experienced with managing, leading or facilitating work teams. Regardless of any rationale developed by a user, when *rationalising* occurs there is simultaneous cessation of *informal fiddling*. Therefore, a user stops making any spontaneous attempts to prevent the continuation of *polarising*, *powering*, *holding-back* or *bouncing-around* during work team occasions they are involved with, as illustrated by the comment:

I can be with a team of people who don't know the tools and I just get so annoyed because of what happens, with everyone just not being on-the-same-page, but I don't really draw people in. I mean I've discussed a couple of the tools with my daughter and played around trying to get some people to use the tools, but I just don't think I can really do anything about things getting whacky when the tools aren't used, so yes

I think that's why I'm likely, well I do, I just keep the tools to myself and put up with the frustration and angst I feel when they aren't used. FG1-4: 79

6.3.7 Closing Down

As with *closing down* during Tooling-Up, closing down during Tensing is disengaging from any utilisation of de Bono's tools, unless there is a requirement to utilise the tools in a work team context by someone with the authority to stipulate this requirement.

When *closing down* occurs during Tensing, as when *closing down* occurs during Tooling-Up, a user of de Bono's tools consciously or unconsciously withdraws from utilising the tools at any time, other than when they are required to during a work team occasion, as illustrated by the comment:

I can see the benefits and I've tried to help people use some of the tools, because, well it makes a level playing field, but to get people to use the tools, people who don't know them, someone has to step up to that, but that's not me, I've learned enough to use the tools if I have to, I'll use them with a group where it's expected, but I don't want to step up and get other people to take it on, that's just not going to be me, I'm not going to put time into that. G3-1:15

When *closing down* occurs during Tensing, the consistency of change in cognitive capability caused by *structuring* is mostly constant and therefore mostly stable, as characterised with *moderate structuring*. However, with *moderate structuring* consistency of change in cognitive capability has reached this level, only in relation to de Bono tools a user is most familiar with. Therefore, because all properties of all stages of *getting-on-the-same-page* temporally emerge relative to each user, by the time *closing down* occurs during Tensing a user's self-initiated utilisation of the tools may only involve a few tools. Once *closing down* does emerge however, regardless of how limited or extensive a user's repertoire of de Bono's tools is, it does not increase and there is no further change in cognitive capability, other than what has happened up to this time. Therefore, as with *closing down* during Tooling-Up when *closing down* occurs during Tensing this causes the immediate termination of the *getting-on-the-same-page* cognitive capability process

6.3.8 *Bettering and Continuation or Discontinuation of Tensing*

As explained in Section 6.2.9, while there may be more reasons why a user stops or continues processing the not-on-the-same-page problem, other than those discovered by the study conducted for this Thesis, the Theory presented in this Thesis only explains the causal relationship between the continuation or discontinuation of *getting-on-on-the-same-page* and the activation of *no bettering*, *mild bettering* or *strong bettering* at the time a user of de Bono's tools is introduced to the tools by a more knowledgeable other. As explained in Section 6.2.5 *bettering*, as an antecedent cognitive/emotive condition characterises the strength of a user of de Bono's tools learning disposition at the time they are introduced to de Bono's tools by a more knowledgeable other. *Strong bettering* being the strength of a user's learning disposition that is underpinned by an unwavering belief that making an effort to learn and personally develop is always necessary and valuable and *mild bettering* being the strength of a user's learning disposition, that is underpinned by a belief learning is useful, until it gets too difficult to justify the effort it requires.

Therefore, the presence of either *mild bettering* or *strong bettering*, affects what transpires with *structuring*, *bettering*, *suppressing*, *straining* and *regulating* during Tensing, with the eventual outcome either being the termination of Tensing prior to the commencement of Enabling or the continuation of Tensing and the commencement of Enabling, as the last stage of *getting-on-the-same-page*. How these significantly disparate outcomes occur, is covered in detail in this Section, firstly with an explanation of what happens when *mild bettering* is present during Tensing and secondly, what happens when *strong bettering* is present during Tensing.

(1) Mild Bettering and The Discontinuation of Tensing

If either *mild bettering* or *strong bettering* is activated at the time a user is introduced to de Bono's tools by a more knowledgeable other, when Tensing commences with the concomitant occurrence of *distinguishing on-the same page* and *distinguishing not-on-the-same-page*, this causes *mild angst-ing*. Therefore, the emotional stressing when a user experiences *powering*, *polarising*, *holding-back* or *bouncing-around* during

work team occasions when de Bono's tools are not getting utilised, is tolerable, with what constitutes 'tolerable' being relative to each user.

When *mild angst-ing* emerges, the presence of either *mild bettering* or *strong bettering* does not however impede the causal relationship between *mild angst-ing* and *moderate structuring*. *Mild angst-ing* causes more *moderate structuring*, *nascent tooling* continues and over time unabated *moderate structuring* causes more *distinguishing not-on-the-same-page* which causes *mild angst-ing* to transition to *extreme angst-ing*. With *extreme angst-ing* the emotional stressing when a user experiences *powering*, *polarising*, *holding-back* or *bouncing-around* during work team occasions when de Bono's tools are not getting utilised, is no longer tolerable and this causes *informal fiddling* which causes more *moderate structuring* and subsequently more *nascent tooling*, as depicted by figure 6.11, in Section 6.3.1. Over time unabated *moderate structuring* causes more *distinguishing not-on-the-same-page* and this causes more *extreme angst-ing*. Once this occurs, which dimension of *bettering* is present at the time unabated *extreme angst-ing* emerges becomes significant. With the presence of *mild bettering* during Tensing, the continuation of *extreme angst-ing* eventually causes *rationalising* and simultaneously *informal fiddling* ceases. With *mild bettering*, a user whose learning disposition is underpinned by a belief learning is useful, until it gets too difficult to justify the effort it requires, stops tolerating how they feel when they experience *powering*, *polarising*, *holding-back* or *bouncing-around* during work team occasions when de Bono's tools are not utilised, rather than responding to this by putting more effort into learning how to utilise de Bono's tools with other people.

While the level of consistency of change in their cognitive ability caused by *structuring* up to this time remains mostly consistent, without further learning it never gets completely stable. Without this complete stability emerging, the stress caused by continually experiencing *polarising*, *powering*, *holding-back* or *bouncing-around* is no-longer tempered sufficiently to cause more change in a user's cognitive ability. Eventually this results in a user who believes that learning is only valuable up to the point where it gets too difficult to justify the effort it requires, reasoning they can no longer resolve their concern about the not-on-the-same-page problem.

With unabated *rationalising*, over time this causes a decline in *moderate structuring*, causing a subsequent decline in *nascent tooling*, which over time causes more *distinguishing not-on-the-same-page* and this causes more unabated *extreme angst-ing*, eventually causing *letting go*, as depicted in figure 6.12 in Section 6.3.1. The more a user reasons they are unable to resolve their concern, the further away they get from wanting to utilise the tools either on their own or with other people, eventually *getting-on-the-same-page* as a process of change in cognitive ability is self-terminated.

(2) *Strong Bettering and the Continuation of Tensing*

With the presence of *strong bettering* during Tensing, unlike the presence of *mild bettering*, the continuation of *extreme angst-ing* eventually causes *informal fiddling*, which causes more *moderate structuring*, and this causes sustained *nascent tooling*. Subsequently *informal fiddling* transitions to *formal fiddling*. As explained in Section 6.3.4 *formal fiddling* is a self-initiated premeditated attempt to prevent the types of cognitive interplay, that indicate to a user of de Bono's tools a work team is not-on-the-same-page, from occurring during a work team occasion. Over time, sustained *formal fiddling* causes *moderate structuring* to transition to *strong structuring* and this causes *nascent tooling* to transition to *maturing tooling*. With unabated *maturing tooling*, *extreme angst-ing* becomes a tipping point, *taking-it-on* occurs and Enabling commences.

6.3.9 *Maturing Tooling and Taking-It-On*

As explained in Section 6.3.7, when *strong bettering* is present during Tensing this activates sustained *formal fiddling* and *moderate structuring* transitions to *strong structuring*. *Strong structuring* also causes more *strong bettering*, which causes more *robust suppressing*, and this causes more *minimum straining*. This causes, more *strong structuring* which causes, more *moderate regulating*.

As these causal relationships between *strong bettering*, *robust suppressing*, *minimum straining*, *strong structuring* and *moderate regulating* are sustained, *nascent tooling* transitions to *maturing tooling*. With *maturing tooling*, these causal relationships are significantly strengthened and therefore less fragile and this causes sustained

distinguishing-not-the-same-page; extreme angst-ing and formal fiddling. With unabated maturing tooling, eventually extreme angst-ing becomes a tipping point which causes taking-it-on and the commencement of Enabling. With taking-it-on a user of de Bono's tools commits to helping people in the substantive area of business organisations to utilise de Bono's tools.

When users who have a disposition towards learning that is underpinned by an unwavering belief that making an effort to learn and personally develop is always necessary and valuable, find themselves involved in work team occasions and de Bono's tools are not used, their perception of *powering, polarising, holding-back* or *bouncing-around* during these occasions, gets more and more acute and their feelings of frustration during these occasions gets more and more intense. They react to their increasing emotional stress when they experience the not-on-the-same-page problem, with more trial and error attempts to prevent these types of cognitive interplay from occurring during work team occasions when de Bono's tools are not utilised. Eventually they stop what one user referred to as "*fiddling around at the edges*", and commit to helping other people to get on-the-same-page during work team occasions when de Boo's tools are not utilised, as illustrated by the comment:

With groups who have the tools you have a very clear focus and intent of what you are trying to do but also you are process driven so you are working towards achieving certain steps so that gives structure and form and shape to what you are doing. Well, I just went, enough is enough, that's what I want to happen in every meeting, otherwise I'm just wasting my time and energy getting upset about how good it could be, so finally I decided to get serious about trying to make it happen. P2-1:13

6.4 Getting-On-The-Same-Page Stage Three: Enabling

This Section of Chapter Six explains Enabling. Enabling is the third stage of the capability change process of *getting-on-the-same-page* and it commences with *taking-it-on*. As explained in Section 6.3.9, *taking-it-on* is committing to helping people in business organisations utilise de Bono's tools. Like previous stages Enabling can be disrupted at any time and emerges, temporally, at a time relative to each user of de Bono's tools.

As Enabling only commences when *taking-it-on* occurs however, unlike earlier stages, this final stage of *getting-on-the-same-page* only emerges when users of de Bono's tools with *strong bettering*, voluntarily engage in helping others to get on-the-same-page. *Strong bettering* being the strength of a disposition towards learning underpinned by an unwavering belief that making an effort to learn and personally develop, is always necessary and valuable. In this Section of Chapter Six a user of de Bono's tools is more precisely referred to as an 'enabled user', this being a user with *strong bettering* who voluntarily engages in helping people get on-the-same-page during work team occasions, as characterised with *taking-it-on*.

Prior to explicating Enabling in detail, an Overview of Enabling introduces the dimensions, elements and aspects of the properties of Enabling, and the relationships between these, that emerge during this stage of the *getting-on-the-same-page* cognitive capability process.

6.4.1 Overview of Enabling

Enabling commences when *taking-it-on* is caused by *extreme angst-ing* becoming a tipping point during Tensing, as depicted in Section 6.3.1, figure 6.13. *Taking-it-on* therefore demarcates Enabling from Tensing. When *taking-it-on* emerges, at whatever time is relative to an enabling user of de Bono's tools, this eventually causes *structuring nuanced thinking*, the third phase of *structuring*. *Structuring*, as explained in Sections 6.2.3 and 6.3.8, being changes in cognitive capability with the utilisation of de Bono's tools.

Taking-it-on and The Activation of Structuring Nuanced Thinking

When *taking-it-on* occurs, a reinforcing feedback loop emerges between *taking-it-on* and *strong structuring*. *Strong structuring* being change in cognitive capability with the utilisation of de Bono’s tools, that is always consistent and therefore always stable. Sustained *taking-it-on* causes more *strong structuring* and this causes *moderate regulating* to transition to *strong regulating*, as depicted in Enabling Hypothesis #1, figure 6.14.

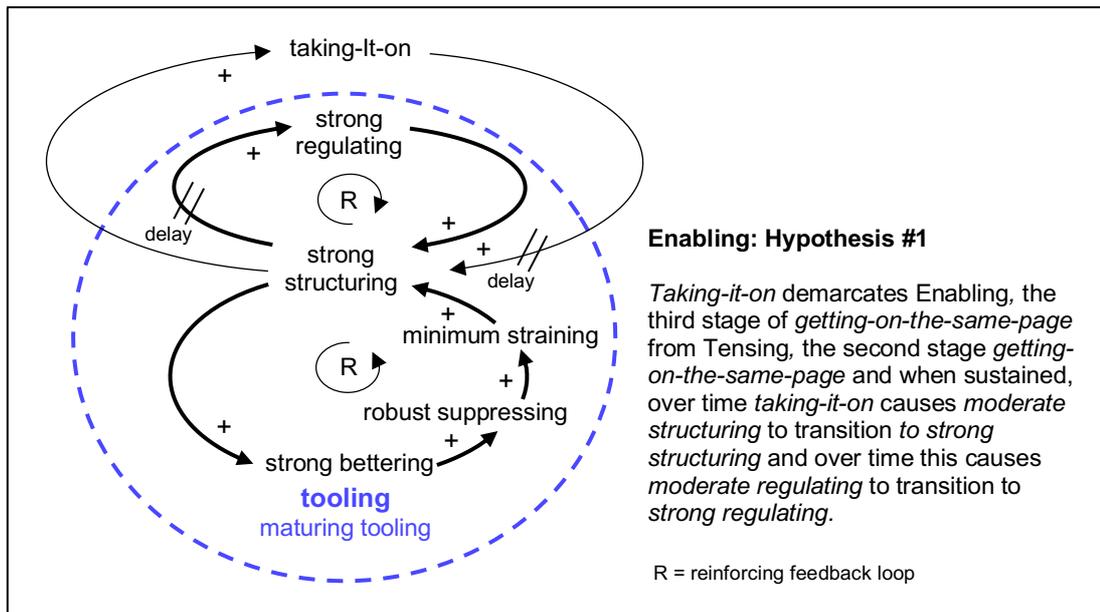


figure 6.14
Enabling: Hypothesis #1.

Tooled Strategizing

Strong regulating is self-initiated guidance of personal nuanced thinking while utilising de Bono’s tools that is always undertaken consciously. When this emerges, it causes more *strong structuring*, which causes more *maturing tooling*. This causes unabated *taking-it-on* and over time this causes *tooled strategizing*. *Tooled strategizing* is the proactive utilisation of de Bono’s tools to strategically create and respond to opportunities to help people utilise de Bono’s tools within the substantive area of business organisations. The emergence of *tooled strategizing* is depicted with Enabling Hypothesis #2 in figure 6.15.

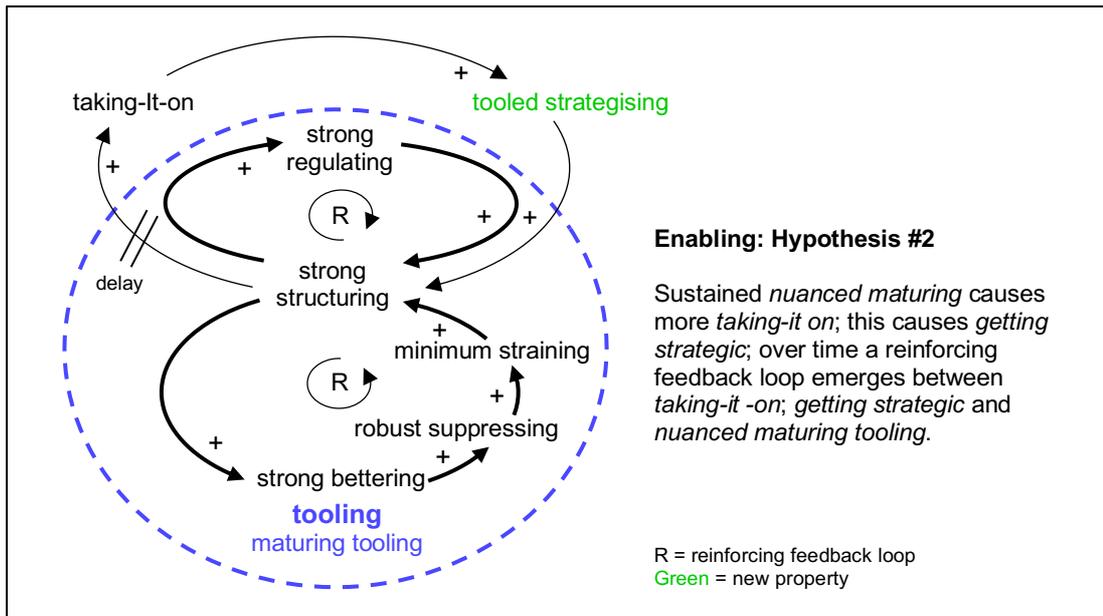


figure 6.15
Enabling: Hypothesis #2.

Tooled strategising causes more *strong structuring* and subsequently, over time a reinforcing feedback loop between *maturing tooling*, *taking-it-on*, *tooled strategising* and *strong structuring* causes *no-wavering*. *No-wavering* is committing to resolving the not-on-the-same-page problem. *No-wavering* causes more *taking-it-on* and this causes more *tooled strategising*, causing a reinforcing feedback loop between *no-wavering*, *taking-it-on*, *tooled strategising*, *strong structuring* and *strong regulating*.

Transition of *Maturing Tooling* to *Nuanced Maturing Tooling*

When the reinforcing feedback loop between *no-wavering*, *taking-it-on*, *tooled strategising*, *strong structuring* and *strong regulating* is unabated, this causes *strong structuring* to transition to *robust structuring* and *structuring nuanced thinking*, the third phase of *structuring*, commences. With *robust structuring* and the commencement of *structuring nuanced thinking*, *maturing tooling* transitions to *nuanced tooling*. Over time a reinforcing feedback loop between *nuanced tooling* and the causal relationships between *no-wavering*, *taking-it-on* and *enabled strategising* perpetuates the processing of *Enabling*. Therefore, when *Enabling* as the final stage of the *getting-on-the-same-page* cognitive capability process, is undisturbed, it continues ad infinitum, as depicted with *Enabling Hypothesis #3*, in figure 6.16.

stage of *getting-on-the-same-page* from Tooling as the second stage, because it is also substantially different from *fiddling*. With *fiddling* a user's reactive attempts to try and stop cognitive interplay from occurring, that indicates to them a work team is not-on-the-same-page, are driven by their need to stop feeling emotional distressed each time they are involved in a work team occasion when de Bono's tools are not utilised. With *taking-it-on* however, a user's rationale for introducing de Bono's tools to other people starts to change. In addition to looking after their own wellbeing, by introducing de Bono's tools during work team occasions to resolve their main concern, they start contemplating how their efforts to introduce de Bono's tools to work teams might impact on the people involved, as illustrated by the comment:

I was asked if I could help some people in another Unit to use the Six Thinking Hats and I thought, yeah of course I'll do that, because I knew they could have better meetings and stop all the mucking around that goes on and then I went no, no, that's not the way to go about this, if they are going to really benefit I had to think about the consequences, the more longer-term impact of them getting to use de Bono's tools not just have me zip in with a few new tools and then zip out again, leaving them stranded.

P8:1:36

Shifting

With *taking-it-on*, a user starts to consider their role and responsibilities as someone who has knowledge and understanding of how to use a set, or many sets of thinking tools, that are new to other people. They start to contemplate what difference they can make to another person's working life by introducing them to de Bono's tools. With this shift in perception a user gets more passionate about helping people utilise the tools. Experiencing positive outcomes when they introduce the tools to other people also reinforces their belief that the tools are valuable, and this engenders more passion. An enabled user with the personal experience of the value of the tools starts to feel compelled to help others gain the same benefits from utilising de Bono's tools, as illustrated by the comment:

The key thing is, yeah, I have the disposition to help people and the inclination and motivation to help people, so I will use any of de Bono's tools at my disposal to help

people think better, to change a situation for the better, but what always guides me are those fundamental guidelines around thinking and creativity that are intrinsic to de Bono's tools and the shifts, in my own perception that's come with using tools like O.P.V. and of course Parallel Thinking, moving forward with thinking versus judgement, so those fundamental principles that you get from de Bono's tools and how they work and why they work so well, stay with me every day and motivate me to just get out there and help others with the tools. P1-1:30-31

Committing

With *taking-it-on* an enabled user shifts from myopically trying to get other people to utilise the tools for their own personal benefit, to a broader consideration of the benefits to their organisation per se. They start to intuitively make a connection between their expertise as a more knowledgeable other skilling people to utilise de Bono's tools; the activation of *collective purposing*, *collective aligning* and *collective equalising*; the prevention of *polarising*, *powering*, *holding-back* and/or *bouncing-around* and organisational development. With this shift in perception they get more cognisant of their role as an instigator of organisational change, when they help an individual or a group to utilise de Bono's tools, as illustrated by the comment:

I've been enabling different teams to utilise them (de Bono's tools) for quite some time, so for me because I'm enabling a real change in the culture of these teams, for me it's not just about skilling someone, it's being, a bit of a change agent, the organisation needs to create some cultural changes, and I'm able to utilise my knowledge of the tools to help create some cultural shifts like getting more innovative, more um, enterprising and creative in the way we do things, but also at the same time empowering people to utilise these tools to help themselves as individuals, and these teams get better at doing things together. P3-2:26

Therefore, with *taking-it-on* an enabled user of de Bono's tools, commits to proactively resolving their main concern, while at the same time committing to proactively resolving the *not-on-the-same-page* problem, for the benefit of other individuals, work teams and their organisation or other organisations per se.

6.4.3 *Tooled Strategising*

Tooled strategising is proactive utilisation of de Bono's tools to strategically create and respond to opportunities to help people utilise de Bono's tools within the substantive area of business organisations.

By the time Enabling commences particular changes in cognitive capability characterised with *cognitive languaging*, *cognitive disciplining* and *cognitive focusing*, as explained in Section 6.3.8, are always consistent and therefore always stable. The stability of these changes underpins *taking-it-on* and this causes *tooled strategising*. Hence, stabilised changes in an enabled user's cognitive capability, engendered by the utilisation of de Bono's tools during Tooling-Up and then Tensing, also underpin *tooled strategising* during Enabling. Therefore, by the time *tooled strategising* emerges, an enabled user is adept at utilising de Bono's tools to deal with a wide range of issues³³. Devising strategies to introduce other people to de Bono's tools, is now perceived by an enabled user in the same way as any another issue that they need to deal with by utilising the tools familiar to them, as illustrated by the comment:

Whenever I introduce de Bono's tools to people who don't know the tools, there's a lot of thought goes into it, I put a lot of thought into how and what I'm going to do to introduce the tools and of course I use the tools with my own thinking to work out what to do, I get clear with my Purpose Focus first of course, and every situation is different so doing an O.P.V is important and most times I end up using Green Hat or Random Word to come up with ideas on how to help a particular team to use the tools, basically, a lot of thought going on with me using the tools to work out how to get other people to use them too. P5-1:34

The strategies devised by an enabled user to resolve their main concern, while concomitantly resolving the not-on-the-same-page problem, fit the organisational contexts within which they perceive this problem, and are therefore unique to them. However, with *tooled strategising* there are at least three general approaches enabled

³³ As with all stages of *getting-on-the-same-page*, when *tooled strategising* emerges temporally, is relative to each enabled user.

uses adopt to deal with the not-on-the-same-page problem. These general approaches are characterised as *waiting to enable*, *covertly enabling* and *explicitly enabling*.

Waiting to Enable

Waiting to enable is an approach to resolving the not-on-the-same-page problem, adopted by an enabled user of de Bono's tools when they do not have the freedom to influence how a work team operates during work team occasions.

In this context, even though an enabled user perceives *polarising*, *powering*, *holding back* and/or *bouncing around* during work team occasions they are involved with, they don't have the imprimatur of those with more organisational authority to introduce de Bono's tools to the people involved in these occasions. With *waiting to enable* they strategically deal with this issue by staying alert to any opportunity to affectively introduce de Bono's tools. However, an opportunity does not always arise, and given an enabled user does not always have the freedom to introduce de Bono's tools whenever they feel the tools would improve a work team's productivity, they are obliged to remain patient. Therefore, with *waiting to enable* it may take some time before an enabled user can start to resolve their main concern, as illustrated by the comment:

I was going to bi-monthly board meetings as a Director of an organisation for nearly four years before I had an opportunity come up to introduce de Bono's tools to the Board, I'd mentioned to a few people along the way that I used de Bono's tools and we could have better meetings if we used them, but it was never picked up and I wasn't the Chairperson. I was getting to the point where I was going to resign, unfocused meetings were quite frankly driving me nuts, then one Board meeting someone said we were always 'reinventing the wheel'. I just jumped in and said we could trial de Bono's Six Thinking Hats and see how we go, that was the start of me helping the Admin Officer and the Chair to use the Hats and then we introduced the Hats to the other Directors. P8-1:90

Covertly Enabling

Covertly enabling is an approach to resolve the not-on-the-same-page problem, that specifically develops within the context of an enabled user of de Bono's tools having the authority to introduce the tools to other people in a business organisation at any time. With this approach an enabling user takes advantage of their freedom to introduce the tools. They have this freedom however because they are in a position of authority as a senior decision maker within an organisation and are therefore generally more aware of the factors that influence or inhibit change within their unique organisational context. With *covertly enabling* an enabled user is confident that introducing de Bono's tools to people in their organisation will have a positive impact on the culture and productivity of their organisation. However, they are also aware that any introduction of the tools must be successful if these benefits are to be realised. They are also cognisant of how people react to change. Therefore, to get as much utilisation of the tools as possible they take a subtle approach to introducing their organisation's employees to de Bono's tools.

This approach does not involve an immediate declaration of the enabled user's intent and is therefore stealthy and not overtly explicit, nevertheless it is a planned and highly strategic, as illustrated by the comment:

I don't tell people I'm using the tools, I facilitate them through the tools without telling them, getting a Purpose Focus, using a CAF, the Hats, using Red Hat, doing a P.M.I. and so on, whatever is needed and they are pleased with the results and then I tell them I was using tools, special tools, de Bono's Hats and so on, then I've got their interest and I tell them all about the Hats. I want to get them excited and interested and get benefits, outcomes, and then they listen about using the tools and I can start to get them using the tools because they've experienced the benefits without knowing why, when they know why, they want to do more. P1-3:5

Explicitly Enabling

Explicitly enabling is an approach, to resolve the not-on-the-same-page problem, that specifically develops within the context of an enabling user of de Bono's tools being

known as someone within an organisation who understands and utilises the tools. With *explicitly enabling* an enabled user responds to requests to help people within their organisation to utilise de Bono's tools during work team occasions. They also overtly negotiate with people in authority to allow them to explicitly introduce de Bono's tools to work teams. With *explicitly enabling* an enabled user is mindful they are moving in and out of work team occasions, introducing people to entirely new ways of thinking. Therefore, they are cognisant of the factors which are going to positively influence a work team's acceptance of de Bono's tools.

With *explicitly enabling* an enabled user particularly concentrates on ensuring people, who have never utilised the tools before, gain immediate and explicit value when they are first introduced to the tools. With *explicitly enabling* they overtly motivate people in their organisation to continue their relationship with the enabled user as a more knowledgeable other, as illustrated by the comment:

After the first session if they haven't used them before, they are not necessarily going to be able to walk out of the room and use them again on their own, so they do need to have someone like me doing it with them, I think the first session, with the precise way I introduce the tools and with me being pedantic with things like being very clear about the Purpose Focus they are using and what that means and staying on Focus and being very clear about which tools they have to use and the rules with the tools, it's skill building, but also it's, developing awareness that the tools are potentially very useful and powerful and there's a lot more to it than just normal talking about problems and pretty much with every new group I've done a session with I've had at least one person contact me afterwards saying 'I'd like my team to keep working with you with this stuff'. P5-2: 55

6.4.4 *No-Wavering*

No-wavering is decisively maintaining a preference for the utilisation of de Bono's tools during work team occasions.

With *no-wavering*, enabled users of de Bono's tools establish a decisive position regarding the utilisation of de Bono's tools during work team occasions. They no

longer vacillate about the value of de Bono's tools, both with their personal utilisation of the tools, and the utilisation of the tools during work team occasions involving one or more other people. The rationale for this position develops however prior to *no-wavering* emerging.

Rationale for No-Wavering

As explained in Section 6.3.2 what constitutes 'on-the-same-page' and 'not-on-the-same-page' from the perspective of a user of de Bono's tools is characterised with *distinguishing-on-the-same-page* and *distinguishing-not-on-the-same-page*. Also, *distinguishing-on-the-same-page* characterises *collective purposing*, *collective aligning* and *collective equalising* as the particular types of cognitive interplay a user of de Bono's tools perceives as indicating a work team is on-the-same-page when de Bono's tools are utilised. Additionally, *distinguishing-not-on-the-same-page* characterises *polarising*, *powering*, *holding-back* and *bouncing-around* the particular types of cognitive interplay a user of de Bono's tools perceives as indicating a work team is not-on-the-same-page. Two axioms emanating from these perceptions, emerge during Enabling and underpin an enabled user's position regarding the utilisation of de Bono's tools during work team occasions. The first axiom being: a work team is on-the-same-page when de Bono's tools are utilised. The second axiom being: a work team is not-on-the same-page when de Bono's tools are not utilised.

As also explained with the Overview of Enabling in Section 6.4.1, *no-wavering* is caused by an unabated reinforcing feedback loop between *maturing tooling*, *taking-it-on* and *tooled strategizing*. With *maturing tooling* there is *strong structuring* and therefore changes in cognitive capability, with the utilisation of de Bono's tools, is always consistent. With *taking-it-on* enabled users are committing to helping other people utilise de Bono's tools and with *tooled strategising* enabled users are proactively utilising the tools, to create and respond to opportunities, to help other people utilise the tools.

Therefore, when *no-wavering* emerges an enabled user's conviction, that a work team is always on-the-same-page when de Bono's tools are utilised and never on-the-same-page when de Bono's tools are not utilised, is also underpinned by their perception

there are distinct benefits to be gained from the sustained utilisation of de Bono's tools. Enabled users perceive these benefits as providing value which is absent if the tools are not utilised. The value perceived by enabled users when de Bono's tools are utilised is characterised as several different types of value, these being *practicality value*, *resilience and adaptivity value*, *equal opportunity value* and *bettering value*.

Rationale for No-Wavering: Practicality Value

Enabled users perceive de Bono's tools as being different from other tools and ways of thinking, because they utilise de Bono's tools to think about issues that are not theoretical, academic or separate from the realities of their everyday lives. Therefore, enabled users consider de Bono's methodologies valuable because, in their experience, de Bono's tools are for practical thinking, as illustrated by a comment from an enable user who described the tools as "*tools for day-in, day-out thinking*". Also, because change in capability when utilising all the tools they are familiar with is always consistent and therefore stable with enabled users by the Enabling stage of *getting-on-the-same-page*, the more enabled users utilise the tools the more they perceive benefits associated with being able to strategically use different de Bono tools for practical thinking outside the context of their working life, as illustrated by the comment:

If you are looking at other so-called tools, de Bono's tools are so different, they can be taken on, picked up and used deliberately, one or a few of them, you can consciously choose ones to use at any time as an individual in your daily life like not, just at work, they are not just for business, they have relevance and can be used all the time.

P3-1:60

Enabled users also consider de Bono's methodologies are valuable because, in their experience, de Bono's tools are practical tools for dealing with personal problems and issues, not just workplace or business-related issue, as illustrated by the comment:

These tools have kept me sane, I'm not being dramatic when I say, kept me from a psychiatrist, enabled clear thinking and made me think and do things differently personally, I use them all the time at home, I've seen linkages where I just haven't seen them before and created different ways of doing things, personally. G1-2:55

Rationale for No-Wavering: Resilience and Adaptivity Value

Enabled users also perceive de Bono's methodologies valuable because, regardless of what kind of issue or problem they have to deal with either in their personal lives or within the context of their workplace, with de Bono's tools they feel they can treat any problem or issue as just another topic for their thinking, rather than feeling overwhelmed by something that feels insurmountable. This does not mean however, they believe utilising de Bono's tools guarantees successful problem solving, as illustrated by the comment: "*you can't get everything solved tickety boo just by using the tools*". Rather than perceiving de Bono's methodologies as a panacea for problems that can't be solved by any other means, enabled users perceive, de Bono's tools as enabling them to be proactive, resilient and adaptive in the face of intractable problems, as illustrated by the comment:

Well I think you learn that with de Bono's tools you can think through anything at all no matter what it is, I think that is core, no matter what's thrown at you, you can think through things, this notion that things don't have to happen to you, they may happen to you, but you can think through anything at all, you have the confidence and the ability to know you can think through everything with the tools at your disposal, you might not always get to solve things the right way, if there is such a thing as the right way with complex issues, but you don't get overwhelmed by that, you just use the tools to work out how to adjust, change, shift tack, you learn the tools can be used to think about anything, no matter how hard it is or how simple it is. P2-1:60

Rationale for No-Wavering: Equal Opportunity Value

Enabled users also perceive de Bono's methodologies as valuable because, within the specific context of utilising de Bono's tools during work team occasions, they feel they are accepted as a thinker whose contribution has equal value compared to the contribution of everyone else involved, regardless of who is involved. With the experience they have had utilising the tools with one or more other people, by the time they are processing the Enabling stage of *not-on-the-same-page*, enabled users perceive a different kind of atmosphere during work team occasions when de Bono's

tools are utilised as compared to when the tools are not utilised³⁴. They perceive this atmosphere as an environment of equal opportunity for all thinkers involved, as illustrated by the comment:

Because the tools are an equaliser there is great respect, everyone has a greater respect for other people in the meeting, respect for their ideas, respect for the environment you are operating in, the environment that is being created, so it's kind of a safe environment that's operating because you've got that freedom of expression and nothing, you feel like, nothing you can say is stupid, I'm just imagining acrobats, you know swinging from one side to the other, that trust they can swap over, they swap over, they swap over the swings and end up on another swing then swap around again, it's that synchronicity based on trust that everyone has equal ability and everyone in that kind of situation has the opportunity and does become a star even if they are holding the swing in a different way from someone else, everyone's a star, not just one or two of the acrobats. G4-2:73.

Bettering Value

As depicted in figure 6.14 with the Overview of Enabling, when *taking-it-on* emerges and Enabling commences, *taking-it-on* causes more *strong structuring* and this causes *moderate regulating* to transition to *strong regulating*, this being, self-initiated guidance of personal nuanced thinking while utilising de Bono's tools which is consciously undertaken. Therefore, by the time they are utilising the tools during the Enabling stage of *not-on-the-same-page*, enabled users perceive a significant improvement in their thinking ability from when they started utilising de Bono's tools³⁵. This direct benefit an enabled user experiences with sustained utilisation of de Bono's tools, as characterised with *bettering value*, is illustrated by the comment:

It's like playing a video game I suppose and when you start at level one, you've never played the video game before, you're not going to be great and as you spend more

³⁴ As with the processing of all Stages of *getting-on-the-same-page* by users of de Bono's tools, including the processing of Enabling as the final stage by enabled users, when a stage temporally emerges or particular cognitive capability changes emerge during a stage, this occurs temporally at a time relative to each user.

³⁵ As with the processing of all Stages of *getting-on-the-same-page* by users of de Bono's tools, including the processing of Enabling as the final stage by enabled users, when a stage temporally emerges or particular cognitive capability changes emerge during a stage, this occurs temporally at a time relative to each user.

time and hours doing it you get better and better at it. Exactly the same with the thinking tools, as you practise and keep using the tools you get more skilled at it and you are able to use the tools over time more fluently and it can become quite a natural thing to do over a long period of time and in that way you can see it as being a higher level of thinking than you were at before, but it's also because of the particular game who've been playing, I mean, I've gotten at a higher level with my thinking because de Bono tools are natural with me now. P6-3: 39

6.4.5 *Regulating*

As explained in Section 6.2.7 *regulating* is self-instigated guidance of personal thinking when utilising de Bono's tools. As also explained, there are three dimensions of *regulating* that characterise the variability of the conscious self-management and control of their thinking by users of de Bono's tools, these being *mild regulating*, *moderate regulating* and *strong regulating*. *Mild regulating* is the self-initiated guidance of personal thinking while utilising de Bono's tools that is sometimes undertaken consciously, and it emerges during Tooling-Up. However, during Tooling-Up, when the *getting-on-the-same-page* cognitive capability process is uninterrupted, *mild regulating* transitions to *moderate regulating*. Further to this, with unabated Enabling *moderate regulating*, as the self-initiated guidance of personal thinking when de Bono's tools are utilised that is always undertaken consciously, transitions to *strong regulating*. *Strong regulating* being self-initiated guidance of personal thinking when de Bono's tools are utilised that is always undertaken to deliberately activate improved thinking.

By the time *moderate regulating* transitions to *strong regulating* during Enabling, an enabled user's thinking about their thinking is clear and precise when they utilise de Bono's tools; they consciously choose sequences and combinations of tools and explicitly manage what they need to achieve with their thinking while using a variety of tools to achieve this³⁶. This includes thinking about their thinking when they are utilising de Bono's Purpose Focus tool to define what they need to achieve with their

³⁶ As with the processing of all Stages of *getting-on-the-same-page* by users of de Bono's tools, including the processing of Enabling as the final stage by enabled users, when a stage temporally emerges or particular cognitive capability changes emerge during a stage, this occurs temporally at a time relative to each user.

thinking about an issue and conscious self-management of their thinking in order to choose and then utilise appropriate de Bono tools, to successfully undertake thinking as directed by their Purpose Focus.

With *strong regulating* an enabled user thinks about how they can utilise de Bono's tools in the best possible way, they adjust their practice with the utilisation of the tools when they are aware, they are less disciplined or not as clear and precise as they could be with their utilisation of the tools. They are more alert to being hasty with their thinking when utilising the tools and ponder more on nuanced aspects of the rules and principles associated with the correct utilisation of the tools. This attention to detail and making adjustments, with the way they utilise the tools to be more proficient with their utilisation of de Bono's tools, is illustrated by the comment:

I'm always reflecting on the way I'm using a tool, deliberately trying to get better at the details, I've used them for a very long time but I keep having 'ah ha' moments about the detailed way to use a tool with my thinking and not being sloppy, like if I'm using PO or Random word not being lazy with Harvesting, I'm always thinking about how I'm thinking with the tools, adjusting, tweaking, listening to myself thinking.

P8-1:63

Strong Regulating and Extant Literature

As pointed out in Section 6.2.4 the discovery of *regulating* with the Theory presented in this Thesis is consistent with the explanation of the development of metacognition in extant literature and in particular the dimensions of metacognition referred to as the 'ladder of metacognition'. This framework identifies four distinct levels of utilising metacognitive thinking, these levels being tacit use, aware use, strategic use and reflective use (Perkins 1992, Perkins and Swartz 1990a, 1990b). *Strong regulating* is compatible with reflective use explained by Perkins and Swartz (1990b, 64) as the level of metacognitive thinking where people "...critically assess and creatively revise their practices...".

6.4.6 Structuring

After Enabling commences, when the reinforcing feedback loop that emerges between *no-wavering*, *taking-it-on*, *tooled strategizing* and *strong structuring* continues unabated, and the reinforcing feedback loop between *strong structuring* and *strong regulating* also continues unabated, as depicted in figure 6.16 with the Overview of Enabling, this causes *strong structuring* to transition to *robust structuring*. With this transition *structuring nuanced thinking* commences.

Structuring nuanced thinking is the third phase of *structuring*, with *structuring new thinking* and *structuring familiar thinking* being the first and second phases, as explicated in Section 6.2.3 and Section 6.3.8 respectively. For theoretical clarity, a retrospective overview of these phases of *structuring* and an explanation of *structuring nuanced thinking* is now provided, before explaining in detail in this Section of Chapter Six the contexts of *structuring* and then the elements and aspects of *structuring* during Enabling.

(1) Overview of the Phases of Structuring

Structuring characterises changes in cognitive capability with the utilisation of de Bono's tools through three phases. These phases are both sequential and cumulative and if uninterrupted, experienced by all users of de Bono's tools, albeit when these phases are experienced temporally is relative to each user.

a. Structuring New Thinking

Structuring new thinking emerges, as the first phase of *structuring*, immediately de Bono's tools are utilised after a user has been introduced to the tools by a more knowledgeable other. When *structuring new thinking* emerges this is a completely new experience for users because *cognitive languaging*, *cognitive disciplining*, *cognitive focusing* and *cognitive levelling*, these being elements of *structuring* that first emerge with *structuring new thinking*, are only processed by a user when they start utilising the tools. Outcomes from this processing during Tooling-Up, the first stage of the *getting-on-the-same-page* cognitive capability process, include significant changes in

the way users of de Bono's tools talk about their thinking; significant changes in how they think about issues they want or need to deal with and significant changes in how they personally think during work team occasions when they and everyone involved are utilising de Bono's thinking tools.

b. Structuring Familiar Thinking

Structuring familiar thinking emerges, as the second phase of *structuring*, during Tensing, the second stage of the *getting-on-the-same-page* cognitive capability process. When *structuring familiar thinking* emerges utilising de Bono's tools is no longer a completely new experience for users, this phase of *structuring* is therefore a phase of consolidation and improvement of personal cognitive abilities, as characterised with the *cognitive languaging, cognitive disciplining, cognitive focusing* and *cognitive levelling* during Tensing.

c. Structuring Nuanced Thinking

During Enabling *structuring nuanced thinking* emerges, as the third phase of *structuring*. With *structuring nuanced thinking, strong structuring* the dimension of *structuring* which emerged with *structuring familiar thinking* during Tooling-Up, transitions to *robust structuring*. With *robust structuring*, changes in cognitive capability characterised with the elements of *structuring*, continue to occur. These being elements being *cognitive languaging, cognitive disciplining, cognitive focusing* and *cognitive levelling*. However, with *robust structuring*, new changes in cognitive capability occur during Enabling, in addition to the changes characterised with *cognitive languaging, cognitive disciplining, cognitive focusing* and *cognitive levelling*. These new changes are characterised by *cognitive listening* as a particular element of *robust structuring*. Therefore, these are changes in cognitive capability, with the utilisation of de Bono's tools, which only occur during the Enabling stage of *getting-on-the-same-page*.

This Section of Chapter Six will now explain *robust structuring* in detail. This will include an explanation of *cognitive listening*, the element of *robust structuring* that only emerges during Enabling. Also, in this Section this dimension and the elements

and contexts of *structuring* that emerge during Enabling will be explained in tandem. This differs from previous Sections of this Chapter explicating Tooling-Up and Tensing, which separate an explanation of the cognitive/relational contexts within which changes in cognitive capability occurred from an explanation of the changes. However, this adjustment has been made with the write-up of the Getting On-The-Same-page Theory in this Section, to explicate more appropriately the complicated nature of the relationships between the properties of the core category of the Theory with the Enabling stage of *getting-on-the-same-page*.

(2) *Consistency of Structuring with Structuring Nuanced Thinking During Enabling*

Robust structuring, the dimension of *structuring* that emerges with the *structuring nuanced thinking* phase of *structuring*, characterises the consistency of change in cognitive capability with the utilisation of de Bono's tools, that occurs with this phase. As with Tensing and Tooling-up, the changes in cognitive capability that occur with the *structuring nuanced thinking* phase of *structuring* during Enabling, are characterised with particular elements of *structuring*, these being *cognitive capability*, *cognitive languaging*, *cognitive disciplining*, *cognitive focusing* and *cognitive levelling*. Further to this however, *robust structuring* uniquely characterises the consistency of nuanced change in cognitive capability with primary and secondary utilisation of de Bono's tools.

Robust Structuring

With *robust structuring* change in cognitive capability with primary and secondary utilisation of de Bono's tools is always consistent and therefore always stable. The *primary utilisation* and *secondary utilisation* of de Bono's tools being two ranges of utilisation which occur within two distinctly different cognitive/relational contexts.

Primary utilisation is the utilisation of de Bono's tools, by a user, to deal with work-based issues when they are a member of a work team utilising de Bono's tools during a work team occasion and to deal with private issues on their own. *Primary utilisation* can therefore occur both within an *in-mind* cognitive/relational context of *structuring* and an *in-mind-in-relationship* context. The *in-mind* context being an individual

privately utilising de Bono's tools, the *in-mind-in-relationship* context being an individual user utilising a de Bono tool or tools when one or more other people, during a work team occasion the user is involved in, are privately utilising the same tool or tools, at the same time as the user.

With *primary utilisation* of de Bono's tools, nuanced changes in cognitive capability as characterised by *cognitive languaging*, *cognitive disciplining*, *cognitive focusing* and *cognitive levelling* are always consistent and always stable. However, these are subtle and discrete changes mostly associated with small improvements and fine tuning. Therefore, with *robust structuring* consistent and stable nuanced change in cognitive capability with primary utilisation involves a user of de Bono's tools, consistently engaging in steady, continuous improvement with how they utilise the tools on their own and during work team occasions, as illustrated by the comment:

I like embracing new things, I just felt, a bit, like am I smart enough and then there was a point about three or four weeks after I started using the tools, I thought 'I think I've got this', then sticking with it about the six months mark something just clicked and I went 'ah now it all clicks', not just the Six Thinking Hats but all the tools I've learned and keep using over and over, now I'm getting into the fine details, just making small improvements with my own thinking in meetings and so forth, now its steady as I go but improving all the time, I don't think I'll ever stop learning something new with how to use the tools better, it just keeps on going. G4-P1:29-31

Secondary utilisation is the utilisation of de Bono's tools, by an enabled user, to deal with issues specifically associated with them helping people to utilise de Bono's tools, for the specific purpose of getting work teams on-the-same-page during work team occasions. *Secondary utilisation* is therefore distinctly different to *primary utilisation*, because it occurs in two distinctly different cognitive/relational contexts to the contexts within which primary utilisation occurs. These contexts are characterised with two dimensions of *structuring*, these being *in-mind-in-enabling* and *in-mind-in-facilitation*.

The *in-mind-in-enabling* cognitive/relational context of *structuring* is an enabled user of de Bono's tools privately utilising at least one of de Bono's tool sets to deal with

the issue of helping a work team get on-the-same-page with the utilisation of de Bono's tools. *The in-mind-in-facilitation* cognitive/relational context of structuring is an enabled user privately considering the utilisation of de Bono's tools by one or more other people during a work team occasion to help them, get on-the-same-page.

(3) *The Elements of Structuring with Enabling*

Changes in cognitive capability with the utilisation of de Bono's tools during Enabling are characterised with the elements of *structuring* that characterise particular changes in cognitive capability during Tooling-Up and Tensing, these being *cognitive languaging*, *cognitive disciplining*, *cognitive focusing* and *cognitive levelling*. However, with the particular relationships between *strong structuring*, *no-wavering*, *taking-it-on*, *tooled strategizing* and the other properties of Enabling, as depicted in figure 6.16 with the Overview of Enabling in Section 6.4.1, continue unabated, *cognitive listening* emerges as a new element of *structuring* during Enabling.

Cognitive Listening

Cognitive listening is changes with personal cognitive ability which result in comprehending another person's thinking when the other person articulates their utilisation of de Bono's tools.

It is possible for the cognitive capability changes specifically characterised with *cognitive listening* to emerge during Enabling because of the level of consistency and therefore stability of changes characterised by the particular elements of *structuring* that emerged firstly during Tooling-Up and then during Tensing. These elements are *cognitive languaging*, *cognitive disciplining*, *cognitive focusing* and *cognitive levelling*. More precisely *cognitive listening* can emerge during Enabling because, changes with the lexicon of personal thinking when utilising de Bono's tools; the orderliness of personal thinking when utilising the tools; personal cognitive intent when utilising de Bono's Purpose Focus tool and personal cognitive modus operandi during work team occasions when utilising the tools, that are constantly occurring when the *getting-on-the same-page* cognitive capability process is unabated, are always consistent and therefore always stable.

When users of de Bono's tools, who have a disposition towards learning that is underpinned by an unwavering belief that making an effort to learn and personally develop is always necessary and valuable and utilise the tools within a cognitive/capability context characterised with *in-mind-in-facilitation*, they experience a change in their ability to, what one enabled user described as "*hearing a person's mind turning over*" when they are helping one or more people utilise de Bono's tools. This perception by users of de Bono's tools that they gain a sensitivity to gauge how someone is thinking when they utilise de Bono's tool, is illustrated by the comment:

I can hear if they are being precise with the way they are defining a Purpose Focus, if they are leaving out a thinking verb from their Focus for example, I can hear if they start judging what's wrong with their thinking when they are supposed to be in Green Hat and generating ideas with no judgement, or using the movement technique with PO, I can hear if they are in Black Hat mode if they are evaluating someone else's ideas when they should be using Green Hat along with everyone else, I can hear them thinking about all the positive things about an idea when they're supposed to be evaluating it in Black Hat mode, like other people are doing. P8-1:102.

As also illustrated by this enable user's comment, *cognitive listening* can entail specifically comprehending someone adhering to, or not adhering to, processes associated with de Bono's tools. There are however two aspects of *cognitive listening*, these being *hearing operative thinking* and *hearing general thinking*.

Cognitive Listening: Hearing Operative Thinking

With *hearing operative thinking* what an enabled user specifically tries to comprehend, is the outcomes of someone adopting operacy when they utilise de Bono's tools. As explained in Section 6.2.3, with the changes in cognitive capability particularly characterised with *linguaging operational thinking* a user doesn't describe the functions of a de Bono tool, they articulate the lexicon associated with the tool while utilising it. By the time Enabling emerges the changes in an enabled user's *linguaging operational thinking* that have occurred with their utilisation of de Bono's tools since

they were introduced to the tools, are consistent and stable. Therefore, they are capable of comprehending if someone has adopted the practice of operacy with their thinking:

After using the tools quite a long time with my own thinking, I know the difference between the outcomes of someone's thinking if they've used de Bono's tools properly and the outcomes if they haven't, if they haven't there's no practical connection to what they were supposed to focus on or completely different outcomes from what you expect to hear after they've used a certain tool, like someone talking on and on critically about an issue, when they should have been considering all the fit factors with the issue, like you do when you are thinking in a practical way with the CAF and then using the language properly like 'another fit factor to consider', and then you hear it's actually a fit factor perfectly aligned with the issue that's being focused on.

FP1-2:46-49

Cognitive Listening: Hearing General Thinking

Hearing general thinking is comprehending another person's general thinking lexicon that indicates if they are using appropriate general thinking modes when they are utilising de Bono's tools. With *hearing general thinking* what an enabled user tries to comprehend is the flow, preciseness and clarity of someone's thinking when they utilise de Bono's tools. They get adept at comprehending someone, jumping to conclusions or solutions too soon, analysing an issue at an inappropriate time, making hasty decisions or rambling with their thinking, instead of being clear and precise.

Hearing general thinking is illustrated by the comment:

I always use a TEC upfront when I'm facilitating people using the tools, and fit the Hats with the TEC and always use a DOCA at the end of the TEC with Blue Hat, well when you're helping people get their heads around using these de Bono tools it's always easy to hear the general thinking that they're doing, snap, you hear every time they go straight to Contract with the TEC when they haven't got anywhere near to defining a clear and precise Purpose Focus with the Target starting point with the TEC. FP3-2: 40

6.4.7 *Properties of Enabling and Nuanced Tooling*

The final depiction of the causal relationships between the properties of Enabling, as presented in figure 6.16 in Section 6.4.1, belies the complex nature of the perpetual processing of this stage of *getting-on-the-same-page*. To explicate the self-perpetuating nature of Enabling more fully, a more detailed overview of the casual relationships between the properties of Enabling is now provided.

Relationships Between Emergent Properties in Detail

When *taking-it-on* emerges, Enabling commences as the final stage of *getting-on-the-same-page*. With unabated *taking-it-on*, an enabled user with *strong-bettering*, engages in *tooled strategising*. With *tooled strategising* they proactively utilise the tools to strategically create and respond to opportunities in order to help people utilise de Bono's tools within business organisations. Their *tooled strategies* activate more *strong structuring* therefore their cognitive capabilities with the utilisation of de Bono's tools, is now always consistent and therefore always stable. This causes their *mild regulating* to transition to *strong regulating* and change in their cognitive capability continues to change with more utilisation of de Bono's tools both within the *in-mind* and *in-mind-in-relationship* cognitive/relational contexts.

The more an enabled user's *strong structuring* with de Bono's tools, within these cognitive/relational contexts, causes more consolidation and improvement of changes with *cognitive languaging*, *cognitive disciplining*, *cognitive focusing* and *cognitive levelling* that occurred during Tooling-up and Tensing *the more taking-it-on* is reinforced, and at the same time *strong regulating* and *strong bettering* are reinforced. With more *strong bettering*, *robust suppressing* is reinforced, and this reinforces *minimum straining*. This *robust suppressing* and *minimum straining* causes, more *strong structuring*. With this continuing consolidation of their cognitive capability more *taking-it-on* occurs and this causes *tooled strategising*.

With *tooled strategising* an enabled user is now proactively utilising de Bono's tools to strategically create and respond to opportunities to help people utilise de Bono's tools within business organisations. More particularly, with their unabated *tooled*

strategising, *no-wavering* emerges because an enabled user (1) continues to strategically create opportunities for people to utilise de Bono's tools, (2) continues to change their cognitive capability with their on-going utilisation of the tools, (3) this results in them suppressing any discomfort they feel when they continue to develop their utilisation of the tools and (4) they simultaneously grow their ability to guide and control how they are thinking, to deliberately improve their thinking, while they are utilising de Bono's tools.

With *no-wavering*, an enabled user decisively maintains a preference for the utilisation of de Bono's tools during work team occasions. When this happens, they have committed to resolving the not-on-the-same-page problem, as the cause of their main concern. Their proactive, self-initiated commitment to resolving this problem, reinforces *taking-it-on*, this causes more *tooled strategising* and *strong structuring* transitions to *robust structuring*. When *robust structuring* commences changes in an enabled user's cognitive capability with the utilisation of de Bono's are now in the third phase of *structuring*, this being *structuring nuanced thinking*.

With *robust structuring* change in an enabled user's cognitive capability with *primary utilisation* and *secondary utilisation* of de Bono's tools is always consistent and therefore always stable. An enabled user's *primary utilisation* means they now, not only deal with work-based issues when they are a member of a work team utilising de Bono's tools during a work team occasion, they are utilising the tools to deal with private issues on their own. Therefore, with *primary utilisation* an enabled user is continuing to consolidate and improve *cognitive languaging*, *cognitive disciplining*, *cognitive focusing* and *cognitive levelling*, either in an *in-mind* or an *in-mind-in-relationship* cognitive/relational context. With *secondary utilisation* an enabled user is now dealing with issues specifically associated with them helping people to utilise the tools for the purpose of deliberately getting work teams on-the-same-page during work team occasions. Also, while they continue to consolidate and improve *cognitive languaging*, *cognitive disciplining*, *cognitive focusing* and *cognitive levelling*, their continuation and reinforcement of *secondary utilisation* is causing them to continue *tooled strategising* within an in-mind cognitive/relational context.

The more an enabled user utilises de Bono's tools within an *in-mind* cognitive/relational context with *tooled strategising*, the more this causes *robust structuring* and therefore *secondary utilising*. This *secondary utilising* occurs specifically within the cognitive/relational contexts of *in-mind-in-enabling* and *in-mind-in-facilitation*. With a user's *secondary utilisation* within this context *cognitive listening* emerges. With *cognitive listening*, an enabled user comprehends another person's thinking when the other person articulates their utilisation of de Bono's tools. Further to this the two aspects of *cognitive listening*, these being *hearing operative thinking* and *hearing general thinking* occur within an *in-mind-in-facilitation* cognitive/emotive context. Therefore, an enabled user is now comprehending the outcomes from another person's utilisation of de Bono's thinking tools, that indicate to them operacy has been implemented with the other person's thinking. They are also now comprehending another person's general thinking lexicon that indicates to them the other person is using appropriate general thinking modes when they are utilising de Bono's tools. Because of the reinforcing feedback loops between all properties of Enabling, when these new elements of *structuring* continue unabated, changes in an enabled user's cognitive capability when they utilise de Bono's tools continues unabated. This enables them to continue resolving the not-on-the-same-page problem ad infinitum

Enabling Hypothesis #3

The detailed overview of the casual relationships between the properties of Enabling provided in this Section of Chapter Six, aligns with the Enabling Hypothesis #3 presented in figure 6.16, in Section 6.4.1 which states:

Tooled strategising causes more strong structuring; over time a reinforcing feedback loop emerges between maturing tooling, taking-it-on and tooled strategising, causing no-wavering; when a reinforcing feedback loop between no-wavering, taking-it-on, tooled strategizing, strong structuring and strong regulating is unabated, this causes strong structuring to transition to robust structuring; maturing tooling transitions to nuanced tooling and over time a reinforcing feedback loop between nuanced tooling, no-wavering, taking-it-on and tooled strategising perpetuates the processing of Enabling.

As first explicated in detail in Section 6.2.10, Tooling is a higher-order property of the core category theoretically explicated as an emergent system of double reinforcing feedback loops caused by sustained casual relationships between very particular dimensions, aspects/and or contexts of *structuring, regulating, bettering, suppressing* and *straining* as lower-order properties of each stage of *getting-on-the-same-page*. When *strong structuring* transitions to *robust structuring* and a reinforcing feedback loop between *no-wavering, taking-it-on, tooled strategizing* and *robust structuring* is unabated and the reinforcing feedback loop between *robust structuring* and *strong bettering* is also unabated, *maturing tooling* the dimension of Tooling that emerged during Tooling-Up, transitions to *nuanced tooling*.

However, unlike *nascent tooling* and *maturing tooling*, the other dimensions of Tooling, that emerge through two stages of *getting-on-the-same page* with clearly demarcated starting and ending points, *nuanced tooling* emerges during a stage of the *getting-on-the-same-page* cognitive capability process, which does not have a clearly demarcated end point. Therefore, as a system of three reinforcing feedback loops between very particular dimensions of the properties of the Enabling stage of *getting-on-the-same-page*, when *nuanced tooling* is not disrupted, it is self-perpetuating.

When the Enabling stage of the *getting-on-the-same-page* cognitive capability process is unabated an enabled user keeps getting work teams on-the-same-page. Therefore, with unabated Enabling there is perpetual processing of a user of de Bono's tools main concern. Their utilisation of de Bono's tools continues ad infinitum, for the benefit of themselves, the work teams and the business organisations they are involved with, as illustrated by a comment from a long-term enabled user:

*The time I stop using the tools and trying to help others with them,
that's when I'll no longer be here.*

CHAPTER SEVEN SUMMARY

IMPLICATIONS AND LIMITATIONS	
INTRODUCTION	
▼	
7.1 CONTRIBUTION TO THEORY AND PRAXIS	
<p>Overall Objective</p> <p>Discuss the most salient contributions of the classic GT presented in this Thesis to Theory and Praxis, in the areas of work teams and teams utilising de Bono's tools in 21st century business organisations.</p>	<p>Section 7.1.1 Contribution to Theory: Work Teams</p> <p>Specific Aim Discuss most salient contributions the Getting On-The-Same-Page Theory makes to the development of theory focusing on the effective functioning of work teams.</p>
<p>Section 7.1.2 Contribution to Theory: Edward de Bono Thinking Tools</p> <p>Specific Aim Discuss most salient contributions the Getting On-The-Same-Page Theory makes to the development of theory focusing on the utilisation of de Bono's tools by work teams in business organisations.</p>	<p>Section 7.2.3 Contribution to Praxis: Work Teams.</p> <p>Specific Aim Discuss most salient contributions the Getting On-The Same-Page Theory makes to the practical functioning of work teams.</p>
<p>Section 7.1.4 Contribution to Praxis: Edward de Bono's Thinking Tools</p> <p>Specific Aim Discuss most salient contributions the Getting On-The-Same-Page Theory makes to the utilisation of de Bono's tools by work teams during everyday work team occasions.</p>	<p style="text-align: center;">▼</p>
7.2 LIMITATIONS OF THE THEORY PRESENTED IN THIS THESIS	
<p>Overall Objective</p> <p>Explain the limitations of the classic GT Theory presented in this Thesis.</p>	<p>Section 7.2 Limitations with The Theory Presented In This Theory</p> <p>Specific Aim Explain the limitations of the Getting On-The-Same-Page Theory as a substantive classic GT, focusing on fit, relevance, workability and modifiability of the Theory.</p>

CHAPTER SEVEN

IMPLICATIONS AND LIMITATIONS

Introduction

From the beginning through to the end, work on the study presented in this Thesis, and the development of the Thesis itself, has been experienced by the Researcher as a process of growing knowledgeability. Adolf, Mast and Stehr (2013, 16) use the term 'knowledgeability' to describe the "necessary state of being" for academic capability that is at the nexus of cognition and action. In the context of this Thesis, action is considered to be the act of sharing the discovery of new knowledge. The Researcher agrees with Brand (2009, 95) when he discusses Hume's account of curiosity and motivation, as proposed by Hume in 1739, that curiosity is the motivator for driving thought into action. Brand (2009, 88) points out the pleasure of discovering new knowledge that comes from being curious, is not only about the sequence of 'pain, pleasure and pain' as one overcomes problems along the way, curiosity is also fed by the thought that what is being discovered will be useful and this drives the need to go on, despite all obstacles. As Brand (2009, 95) delves further into Hume's considerations of motivation, he proposes:

We become concerned with usefulness of our insights after we have made those insights our own. Without a sense of ownership, we care far less about how our discoveries influence the world.

While this Thesis has been entirely written in the third person it is an an outcome of the Researcher's personal accumulation of knowledgeability, driven by personal curiosity, by a sense of ownership and most of all, the opportunity to make a relevant and significant contribution to theory and praxis.

Contribution to Theory

The originators of grounded theory methodology maintain the systematic discovery of a theory, from the data of social research, should be "useful in the advance of

sociology” (Glaser and Strauss 1967, 3). Accordingly, Section 7.1 of this Chapter firstly discusses the usefulness of the Getting-On-The-Same-Page Theory to advance theory focusing on the effectiveness of work teams in business organisations, business studies being a broad field of research within the ambit of human and social sciences. More particularly this Section discusses the usefulness of the Theory to advance theory that focuses on the effective functioning of work teams. Secondly, Section 7.2 discusses the usefulness of the Theory to advance theory focusing on the utilisation of Edward de Bono’s tools by work teams operating in 21st century business organisations.

*Contribution to Praxis*³⁷

Glaser and Strauss (1967), also point out that the systematic discovery of a theory from the data of social research, as accomplished with classic GT research, should also be useful in practical applications, predictions and explanations in order to give practitioners a clear understanding and control of situations as much as is practically possible. Accordingly, Section 7.2 firstly discusses how the Getting-On-The-Same-Page Theory, will be useful for decision makers who are responsible for improving work team functioning in business organisations and discusses how the Theory will be useful for decision makers and users of de Bono’s tools in business organisations where the tools are not utilised, are being considered, or are already being utilised.

Limitations

Section 7.3 of this Chapter finalises the Thesis by explaining the limitations of the classic GT discovered by the study conducted for this Thesis, firstly with a discussion on the limitations of the Getting-On-The-Same-Page Theory as a substantive theory and secondly by focusing on the fit, relevance, workability and modifiability of the Theory, these being the criteria for evaluating the quality of a classic Grounded Theory as the end product of a classic GT study (Glaser and Strauss, 1967, Glaser 1978, Glaser 1992. Holton and Walsh 2017).

³⁷ The definition of praxis adopted in Chapter Seven of this Thesis is: the process of using a theory in a practical way (Cambridge Dictionary 2020, accessed November 1, <https://dictionary.cambridge.org/dictionary/english/praxis>).

7.1 Contribution to Theory and Praxis

Given the paucity of rigorous research on the correct utilisation of Edward de Bono's thinking tools by work teams, the Getting On-The-Same-Page Theory primarily provides a benchmark for quality studies focusing on the utilisation of de Bono's tools by work teams per se and by work teams within the context of work team occasions specifically. The availability of this Theory as a benchmarking study therefore has the potential to significantly impact on theoretical perspectives of work team functioning. The most salient contribution the discovery of the Theory has on the development of theory associated with work team functioning, is in the area of work team cognition. Also, because of the paucity of rigorous research on the correct utilisation of de Bono's tools by work teams the most significant implication the discovery of the Getting On-The-Same-Page Theory has on the development of theory associated with the utilisation of the tools in business organisations, is the discovery of the Theory itself.

7.1.1 *Contribution to Theory: Work Teams*

Work team effectiveness is a primary area of research with business studies and studies in a wide range of related and disparate areas including psychology, medicine, computer science, economics, engineering, decision sciences and mathematics (Kozlowski 2018; Rico et al. 2011). For several decades, work team effectiveness has been considered, by using a variety of context/input-process-output models, with inputs consisting of the composition of a team; individual resources and processes generally considered to be associated with the dynamics of member interactions and collaboration (de Orteniis et al. 2013, Kozlowski 2018; Rico et al. 2011).

Work Team Cognition as Mental Models

A major research interest with team effectiveness studies has been team processes or emergent states, these being primary factors contributing to team effectiveness (Rico et al. 2011). These emergent states include team member cognition, behaviour, affect and motivation, with collaboration and cohesion considered to be phenomena emerging from dynamic combinations of these emergent states (Kozlowski 2018;

Kozlowski and Ilgen 2006; Rico et al 2011; von Treurer et al. 2013). With extant research on work functioning, team cognition is defined as cognitive activity that occurs within a team and work team studies almost exclusively focus on this cognitive activity as shared mental models (Fernandez et al. 2018, Kozlowski 2018; Kozlowski and Ilgen 2006; Rico et al. 2013; Wildman, Salas and Scott 2014).

Mental models are defined by Senge (1990, 8) as “deeply ingrained assumptions, generalizations, or even pictures or images that influence how we understand the world and how we take action”. Team mental models are described variously as mental representations of knowledge that members of a work team share; shared understanding; mental representations of knowledge relevant to key elements of a work team’s task environment; mental representations of objects, actions, situations and people; mental representations of knowledge of relationships between concepts and how an individual cognises information (Fernandez et al. 2018; Rico et al. 2011; Wildman, Salas and Scott 2014). Research focusing on team mental models is wide ranging, the most commonly researched constructs being mental models regarding task-oriented knowledge and team-related knowledge. Central to most research however is understanding the manipulation, structuring and distribution of knowledge within a team (Wildman, Salas and Scott 2014).

Comparing Structuring with Team Mental Models

Team mental models are considered to be cognitive processes that are conceptualised as stable cognitive structures (Wildman, Salas and Scott 2014). However, mental models, in a work team context, simply mean each person in a work team has the same knowledge and understanding about selected phenomena external to each of them. They akin to having a shared perception and therefore an emergent static outcome of individual cognition, as compared to *structuring*, in the *in-mind-in-relationship* cognitive/relational context being dynamic change in collective cognitive capability. This is a fundamentally different kind of shared cognition than a work team having the same knowledge about phenomena external to everyone involved. Furthermore, the emergent team cohesion perceived by users of de Bono’s tools that is activated by *collective purposing*, *collective aligning* and *collective equalising* as aspects of *structuring*, are emergent states that are fundamentally different when compared to the

emergent states identified with extant work team theories. With a paucity of research focusing on the utilisation of de Bono's tools with work teams, the contribution the Theory presented in this Thesis makes to work team research is significant because it explains work team functions previously unexplained. Further to this, there are also a difference between the Theory and extant research focusing on cohesion, and more specifically, work team conflict.

Comparing Distinguishing and Normative Assumptions Regarding Team Conflict

General definitions of conflict in the literature focusing on work team conflict vary considerably, however there is a general understanding as to what constitutes interpersonal conflict. Barki and Hartwick (2004, 232) point out there is considerable research linking interpersonal conflict to "behaviours" such as "debate" and "argumentation" and list 27 different scholarly definitions of conflict that fall into the categories of task, process or relationship conflict, with 22 of these definitions using the terms "disagreement" or "differences" and the remainder using terms such as "friction" and "argument" (Barki and Hartwick 2004, 22). Furthermore, Barki and Hartwick (2004, 234) consider interpersonal conflict as a construct that incorporates the simultaneous presence of cognitions, emotions and behaviours relevant to conflict contexts, defining interpersonal conflict as "a dynamic process that occurs between interdependent parties as they experience negative emotional reactions to perceived disagreements and interference with the attainment of their goals". There is a fundamental assumption however that "When situations of disagreement are not accompanied by interference behaviours and negative feelings, they are likely to encourage increased discussion and debate, leading to the identification of better solution to problems and improving group outcomes" (Barki and Hartwick 2004, 237). In alignment with the focus on dyadic emotional negativity as a core characteristic of interpersonal conflict, relationship conflict can be very loud and confusing. This includes team members yelling at each other and heated disagreements, with people being personally insulted (Barki and Hartwick 2004; Humphrey et al 2017; Jehn et al. 2010). Jehn et al (2013) consider relationship conflicts to be disagreements among team members emanating from interpersonal incompatibilities, that typically include tension and animosity; stubborn arguing for a certain viewpoint; making threats and being condescending. Maltarich et al (2018) also point out relationship conflict arises

from personality differences or disagreements among group members about interpersonal issues, norms or values, resulting in a concern for self in lieu of concern for the other party.

Distinguishing-not-on-the-same-page aligns with definitions, characteristics and observations regarding conflict and groups, as explicated in the literature focusing on work team conflict in business organisations. However, there is no similarity regarding strategies to prevent conflict, regardless of how mild or disruptive it may be, as discovered with *distinguishing-on-the-same-page*, *fiddling* and *tooled strategising*. Further to this, the Getting On-The-Same-Page Theory is a challenge to the normative position taken in the academic literature on work team conflict, that some form of conflict during work team occasions, can be and is beneficial. The Getting-On-The-Same Page Theory therefore, whilst challenging the norm, makes a contribution to work team theory in the areas of conflict and conflict resolution, because it provides a new perspective on the role of conflict during work team occasions, and further to this, the relationship between interpersonal conflict and work team productivity.

7.1.2 Contribution to Theory: Edward de Bono's Thinking Tools

With the paucity of research focusing on the correct utilisation of de Bono's tools in business organisations and within the context of work team occasions in business organisations in particular, it is difficult to identify the most salient features of the Getting On-The-Same-Page Theory to compare and contrast with extant research. This Thesis is therefore proposing the discovery of the Theory per se is a significant contribution to the development of Theory focusing on Edward de Bono's work. In addition, with the Theory establishing a benchmark for future research focusing on the correct utilisation of de Bono's thinking tools by work teams, this will also significantly contribute to a more informed discussion regarding the utilisation of de Bono's tools in the context of business organisations.

7.1.3 Contribution to Praxis: Work Teams

As identified in the Introduction to Chapter One in addition to the amount of time organisational personnel spend in meetings, estimates also indicate a majority of

business organisations commit 7% to 15% of their personnel budgets on meetings (Rogelberg, Shanock, and Scott 2012). Further to this Rogelburg, Shanock, and Scott (2012) point out meetings are a significant financial investment for organisations. With major Return on Investment (ROI) consequences, training and development associated with productivity and the functioning of work teams is a priority area for 21st century business organisations. In 2009, in the United States of America alone, business organisations spent \$126US billion on employee training and development, by 2012 this had increased to \$US164 billion and by 2017 annual training costs per employee amounted to \$US1296 (Aguinis and Kraiger 2009, Seemiller and Rosch, 2019). Leaders and managers at all levels in 21st century businesses are increasingly linking performance management and learning and development on an ongoing basis (Aguinis and Kraiger 2009). Training in the utilisation of de Bono's tools is one of many training and development opportunities available to business leaders and managers. With a paucity of rigorous research focusing on the utilisation of de Bono's tools within business organisations, and the utilisation of the tools by work teams particularly, the Getting On-The-Same-Page Theory makes a practical contribution to the development of work teams, by giving business leaders and managers a better understanding and greater clarity regarding what to expect when work teams are trained in the utilisation of de Bono's thinking tools for application during work team meetings and other work team occasions.

7.1.4 Contribution to Praxis: Edward de Bono's Thinking Tools

With the paucity of research regarding de Bono's tools and business organisations, the Getting On-The-Same-Page Theory also provides a useful framework for people in business organisations who are utilising the tools, to interpret what occurs when they and other people correctly utilise the tools. Also, there is particular relevance for people who are enabled users of de Bono's tools because they can use the Theory qs as a framework to monitor their own praxis, in addition to using it to help individuals and work teams they are enabling to get-on-the-same-page, to understand the process they are experiencing.

7.2.1 Limitations with The Theory Presented in This Thesis

As explained in the Introduction to Chapter One, the Getting On-The-Same-Page Theory as a classic GT is being presented in this Thesis as a substantive theory. A substantive theory being a grounded theory developed within a specific setting, which with the Theory presented in this Thesis, is business organisations and more particularly work team occasions occurring within business organisations. Furthermore, a substantive theory, having been developed within a specific setting, is only generalisable to a limited number of similar settings or groups. Because the core phenomena the Theory presented in this Thesis is concerned with, is the utilisation of de Bono's tools, the Theory cannot transition, even with further data collection, to formal theory explaining *getting-on-the-same-page* cognitive capability process, as a process applicable to all groups of people.

Further discussion on the limitations of the Theory presented in this Theory will now be undertaken in reference to the prescribed criteria of fit, workability, relevance and modifiability, for determining the quality of a classic Grounded Theory.

Fit

Fit is another term for validity. Does the concept adequately express the pattern in the data which it purports to conceptualise? Fit if continually sharpened by constant comparisons (Glaser 1998, 18)

As explained in detail in Chapter Five, after initially commencing the study presented in Thesis without adhering to key tenets of classic GT, the Researcher recommenced the study and diligently followed the procedures prescribed for conducting a classic GT. This adherence to classic GT methodology is described and demonstrated with photographic documentation in Chapter Five. The Researcher was sensitive to the cyclical and recursive nature of classic GT methodology and was diligent in applying the constant comparison method at every stage in the study in order to attain and retain fit. Therefore, the Researcher presents the Getting On-The-Same-Page Theory in this Thesis, on the basis the fit criteria has been met.

Workability

Workability means do the concepts and the way they are related into hypotheses sufficiently account for how the main concern of participants in a substantive area is continually resolved? (Glaser 1998, 18).

The class GT presented in this Thesis is complex and at times during the study the Researcher worried as to whether the participants' main concern had been appropriately identified. This wavering of confidence has been openly and honestly documented in Chapter Five. The Researcher also spent a considerable amount of time in the field gathering data to ensure saturation. This included observing and gathering data from disparate range of groups from six organisations within the substantive area, with the Researcher spending no less than four months in the field with each of the eight main work teams involved in the study and no less than six weeks with a ninth team involved in the study. As explained in Chapter Six (Section 6.2.9: *Bettering and Continuation or Discontinuation of Tooling-Up*) limited resources did impact on the study and while the Researcher feels confident all categories of the Theory were fully saturated, further data collection may confirm there are new sub-categories that would more comprehensively explain the continuation or discontinuation of the three Stages of the *getting-on-the-same-page* cognitive capability process.

Relevance

Relevance makes the research important because it deals with the main concerns of the participants involved. To study something that interests no one really or just a few academics or funders is probably to focus on no-relevance or even trivia for the participants. Relevance, like good concepts, evoke instant grab. (Glaser 1998 18)

As recommended by Glaser (1978) the Researcher had top informants. Data was gathered from eight top informants well into and past the time the first drafts of this Thesis was written up. The Researcher was therefore diligent about getting feedback on the relevance of the concepts to people who were actively utilising de Bono's tools on a regular if not a daily basis. Several top informants started using terminology associated with the Theory and started conversing with the Researcher about the utilisation of the tools personally and with others, in accordance with the three stages

of the *getting-on-the-same-page* cognitive capability process, prior to the submission of this Thesis for examination. This was particularly so with *distinguishing-not-on-the-same-page* and *distinguishing-on-the-same-page*, and their own on-going *tooled strategising* as a never-ending process of *enabling*, in order to get people on-the-same-page during work team occasions. This provided the Researcher with valuable insights as to the relevance and ‘grab’ of the Getting On-The-Same-Page Theory for users of Edward de Bono’s thinking tools.

Modifiability

Modifiability is very significant. The theory is not verified as in verification studies, and this never right or wrong ... it just gets modified as new data to compare it to...New data never provides a disproof just an analytical challenge.” (Glaser 1998, 19).

Given the on-going adjustments, collapsing of concepts, discovery of higher-order sub-categories and nuanced aspects of categories, activated through the feedback from top performers right up until presentation of this Thesis for examination, the Researcher is confident the Theory presented in this Thesis is modifiable. The Researcher is also keen to gather more data from people utilising de Bono’s in different team settings, such as sporting teams; young people in classroom settings and families to further modify the Theory and increase the practical relevance of the Theory, beyond the context of business organisations.

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APPENDIX 1:

Information sent to organisations requesting their involvement in the study presented in this Thesis.



Ali Sumner MBL (Curtin)
PhD Candidate Curtin University
Curtin Graduate School of Business
75 Murray Street Perth 6000
Western Australia

Dear

I am contacting you in my capacity as a Doctoral student at Curtin Graduate School of Business, to ask *name of organisation* to help with a Study involving work-teams using Dr Edward de Bono's thinking tools and processes.

You may be aware that I am also the Chief Executive of the Western Australian not-for-profit POWA Institute and as the Institute's senior instructor in de Bono's thinking tools, I have trained employees in your organisation on a fee-for-service basis.

To undertake this Study, I have declared a possible conflict of interest to the Curtin Human Research Ethics Committee because of my role as the Chief Executive of the POWA Institute and the Institute's involvement with the not-for-profit de Bono Institute (Australia). Also, because of my position as the only de Bono Thinking Systems Inc. (USA) instructor in Western Australia that is authorised to train people in all of the de Bono's methodologies associated with this Study.

I need to clarify therefore, that I am only contacting *name of organisation* in my capacity as a part-time Doctoral Student at Curtin University. There will be no financial cost or remuneration to your organisation or to any of your employees who may volunteer to be involved with this Study. I am not receiving funding from the POWA Institute; the de Bono Institute (Australia) or de Bono Thinking Systems Inc. to conduct this study. Any work I undertake with people in your organisation in relation to this Study, will be done while I am on unpaid leave from the POWA Institute.

It is important that people freely volunteer to be involved in this Study. Therefore, I am contacting you to firstly gain permission to work with people employed at *name of organisation*. Secondly, if *name of organisation* is willing to help with this Study, that a call for volunteers is distributed by *name of organisation* rather than me personally contacting potential participants that have had a learner-instructor relationship with me in the past.

Thank you for your consideration, I will contact you within the next two weeks to ascertain if *name of organisation* is willing to help with this Study.

If you have any queries you can contact me at: alros.sumner@postgrad.curtin.edu.au

You can also contact my PhD supervisor and principal investigator for this study, Professor Al Rainnie at the Curtin Graduate School of Business on 9266 3131 or al.rainnie@gsb.curtin.edu.au

Yours sincerely
signature

Ali Sumner MBL (Curtin)
Doctoral student Curtin Graduate School of Business.
email: alros.sumner@postgrad.curtin.edu
date

PARTICIPANT CONSENT FORM – WORK TEAM STUDY

Overall Objective of this Study

To investigate what happens, when work-teams use Dr Edward de Bono's thinking tools and processes.

Principle Investigator – overseeing this Study

Professor Al Rainnie, Chair Curtin Graduate School of Business Research and Development.
al.rainnie@gsb.curtin.edu.au

Co-Investigator – undertaking research for this Study

Ali Sumner MBL (Curtin), Doctoral student Curtin Graduate School of Business.
alros.sumner@postgrad.curtin.edu.au

To undertake this Study, I have declared a possible conflict of interest to the Curtin Human Research Ethics Committee because of my role as the Chief Executive of the POWA Institute and the Institute's involvement with the not-for-profit de Bono Institute (Australia). Also, because of my position as the only de Bono Thinking Systems Inc. (USA) instructor in Western Australia that is authorised to train people in all of the de Bono's methodologies associated with this Study.

I need to clarify therefore, that I am only contacting *name of organisation* in my capacity as a part-time Doctoral Student at Curtin University. There will be no financial cost or remuneration to your organisation or to any of your employees who may volunteer to be involved with this Study. I am not receiving funding from the POWA Institute; the de Bono Institute (Australia) or de Bono Thinking Systems Inc. to conduct this study. Any work I undertake with people in your organisation in relation to this Study, will be done while I am on unpaid leave from the POWA Institute.

Should you have any complaint regarding the conduct of this research please contact: Dr Alistair Rainnie at the Curtin Graduate School of Business on 9266 1313 or al.rainnie@gsb.curtin.edu.au

Participant Consent

I _____ (please print) am an employee of *name of organisation* and I have been provided information about this study by *name of organisation* because I have been trained, mentored or facilitated in the use of Dr Edward de Bono's thinking tools by the researcher, Ali Sumner.

I have read the information provided to me the Study and any questions I had about this Study have been answered to my satisfaction by the researcher and the *name of organisation* contact person.

I understand and agree:

- I am participating in this study as a voluntary participant.
- I will not receive any remuneration for participating in this Study.
- I can withdraw from this Study at any time without having to provide an explanation to *name of organisation* or the researcher.
- I will be interviewed by the researcher at least once and possibly more than once.
- Interviews with me will be digitally recorded by the researcher.
- As a member of a project team involved in this Study, group discussions in which I participate may be digitally recorded by the researcher.
- Information gained for this Study from myself and/or from group discussions of which I am a participant may be published as part of the researcher's Doctoral thesis and/or submitted by the researcher to any other publication, provided there is no information that will identify me as a participant in this Study.

Signature _____

Date

APPENDIX 2:

The nature and range of groups (work teams) involved in the study.

WORK GROUPS (WORK TEAMS) INVOLVED IN RESEARCH - PROFILES	
GROUP	PROFILE
<p>ORGANISATION (1)</p> <p>Regional local government council working on behalf of five Local Government member Councils with the region encompassing a land are of over 200,000 hectares and a population over 300,000.</p>	<p>GROUP 1 and GROUP 2</p> <p>Cross functional work teams of the Organisation's Environmental Services Unit responsible for delivering services and projects focusing on best practice land management; improving the region's air and water quality; enhancing and protecting local biodiversity. The Group 1 team was most involved in the Study Members of this team worked at different levels in the Unit and included the Unit's manager, a group leader and specialist environmental services officers. Similarly, the larger Group 2 consisted of 2 smaller multi-functional teams. During the study in addition to utilising de Bono's tools within the context of their day to day work and interactions, specifically focused on, firstly, the design of a new business model for the Unit and secondly the operationalisation of the business model by all members of the Unit. Therefore, during the time they were involved with the study, they worked together as change agents within their Organisation, leading and facilitating substantial shifts in the way their Unit functioned, promoted and delivered its services with both internal and external stakeholders.</p>
<p>ORGANISATION (2)</p> <p>Large long-established not-for-profit organisation providing affordable housing for seniors, residential aged care, home care, day clubs and dementia services.</p>	<p>GROUP 3</p> <p>The Group operated as a special project team investigating and inventing new concepts for affordable aged care housing. The team was cross-functional and included senior managers in the area of finance and computer services, front-line aged care service personnel, secretarial support staff and a volunteer committee member of one of the Organisation's advisory committees. As such none of the team members worked together on a daily basis and the group had never work together prior to participating in the study.</p>
<p>ORGANISATION (3)</p> <p>Local Government outer-metropolitan City Council Authority with 600 staff.</p>	<p>GROUP 4, GROUP 5, GROUP 6</p> <p>The Groups were formed during a time of when the Council expected to be merged with another organisation due to State Government reforms to reduce the number of Local Government authorities operating. The Groups worked with the organisation's CEO to address staff stress and maintain quality services to residents and other stakeholders during a time of unprecedented upheaval. At times the three groups worked together in addition to working independently on different issues that needed to be addressed. Each team was cross functional and consisted of staff from all areas of the Organisations including executive directors, managers, outside grounds and recreational staff, marketing staff, front desk customer service staff, administrators and junior office employees. Some time after the study commenced attempts to amalgamate Local Government Authorities were abandoned and the Groups changed their focus. One team worked on designing and implementing strategies for the organisation to be a more connected, adaptive and resilient culture. One team worked on devising and implementing a rolling action plan to enable all staff throughout the organised to feel energised and recognised. One team worked on devising a strategy and implementing an action plan to support a culture of innovation and creativity.</p>
<p>ORGANISATION (4)</p> <p>Large State Government Statuary Authority services with a profit-making business model.</p>	<p>GROUP 7</p> <p>The Organisation annually succonds staff at all levels to form a team to specifically develop a 12-month program of strategies, projects and initiatives to maintain a culture of innovation, invention and creative. The team involved in the study was in the second half of their secondment year with facilitating and managing substantial projects and initiatives involving staff at all levels of the organisation. They therefore worked together every day within a centrally located innovation centre.</p>
<p>ORGANISATION (5)</p> <p>Not-for- environmental organisation operating an inner complex with a city farm, venues for hire and a weekly farmers market.</p>	<p>GROUP 8</p> <p>The Organisation worked with long-term unemployed people and community volunteers. The team included all administrators, operations staff and customer services staff and were collectively responsible for developing and maintaining venue-based operations and supporting people involved in job creation activities. All team members had daily contact with each other within a heavily operational context.</p>
<p>ORGANISATION (6)</p> <p>Start-up social enterprise working with youth at risk.</p>	<p>GROUP 9</p> <p>The team included co-founding CEO and Manager and key staff working with young people working daily together and focusing on strategic and operational issues.</p>

APPENDIX 3

Development of the Researcher's Complexity Reality *Waltenschauung*, as presented in this Thesis.

Introduction

It is now generally accepted that complexity science is distinctly different from the Newtonian/Cartesian scientific paradigm that informed Western academic endeavor for over 400 years up until the mid-20th century (Aubin and Delmedico 2002; Cilliers 1998; Gershenson and Heylighen 2005; Goldstein, Hazy, and Lichtenstein 2010; L. Johnson 2015; Jörg 2017; Lemay and Sá 2012; Malaina 2015; Morin 2007; Amaral and Uzzi 2007; Richardson 2005). Furthermore, outcomes from the work being conducted within the realm of complexity science, are now significantly impacting on both theory and practice within the academic disciplines of social science, economics, management, leadership, entrepreneurship and the study of organisations (Castellani and Hafferty 2009; Gilbert and Bullock 2014; Goldstein 2008; Hazy and Uhl-Bien 2014; Lemay and Sá 2012; Lichtenstein 2011, 2014; Maguire 2011; McKelvey, Lichtenstein, and Andriani 2012; Mitchell 2009; Richardson 2005; Schindehutte and Morris 2009; Woermann, Human, and Preiser 2018). A shift in a scientific paradigm such as this is considered a transition from one accepted traditional scientific model or pattern to a different and new one, with the philosopher Thomas Kuhn (1962, 23) maintaining paradigm shifts can be classed as “scientific revolutions”.

Although there is considerable debate as to whether there is an agreed-on definition of complexity science, it is acknowledged by complexity scholars that trying to define a new paradigm in cultural and philosophical terms, is one of the struggles that takes place as it emerges (Gilbert and Bullock 2014; Malaina 2015; Miller and Page 2007; Mitchell 2009; Morin 2007; Amaral and Uzzi 2007; Santos 2013). From a wide range of definitions and descriptions, all of which have many similarities, this Thesis specifically draws on the definition of complexity science provided by McKelvey, Lichtenstein, and Andriani (2012, 106):

Complexity science is the study of order creation – the only science dedicated to explaining how new order emerges through self-organisation in physical, biological and social systems.

The meaning of the term ‘complexity’ is however more difficult to determine. It is ubiquitously used within complexity science, often as a generic term that appears to denote a general body of knowledge about the complex nature of living things and therefore knowledge about those ‘things’ that have characteristics of organisation, metabolism, movement, growth, reproduction, irritability and adaptation (Eriso 2016). Complexity is also used however, as a term to denote a specific construct within a specific stream of complexity science. Mitelton-Kelly (2003, 4) maintains the term ‘complexity’ in complexity science literature refers to the theories of complexity with the plural ‘theories’ reduced to the singular for easy reference. There appears however to be no consistently articulated definition for complexity, as indicated by many complexity scholars and commentators (Adami 2002; Cilliers 1998; Heylighen 2008; S. Johnson 2001; Koopmans 2017; Ladyman, Lambert, and Wiesner 2013; Mitchell 2009; Mitelton-Kelly 2003; Richardson 2005; Taleb 2012; Waldrop 1992). Despite the difficulties associated with articulating its meaning, ‘complexity’ is a term consistently used in this Thesis, therefore clarification of what it means within this context is warranted. To achieve this, the Researcher has primarily drawn on the explanation of complex systems provided the complexity philosopher Paul Cilliers. Even though Standish (2008, 105) suggests the term ‘complexity’ has two distinct usages that can be classified as a “quality” or a “quantity”, Cilliers (2005) maintains establishing a definition of complexity is somewhat elusive, both qualitatively and quantitatively, and therefore Cilliers focuses on the characteristics of complex systems in order to arrive at an acceptable understanding of the term ‘complexity’.

Taking Cilliers work into consideration, in this Thesis the use of the term ‘complexity’, basically implies the consideration of a complex system. In the context of complexity science, complex systems such as, biological, ecological and human social systems, are differentiated from simple systems such as a snowflake, and merely complicated systems such as an aeroplane (Cilliers 1998; Poli 2013; Standish 2008). In comparison to simple and complicated systems, a complex system has a large number of elements interacting in a dynamic way, with whole-of-system change occurring over time. Interactions in a complex system are influential and non-linear, therefore small causes

can have large effects and vice versa. Complex systems are usually open systems that interact with their environment, and have a history, whereby past behaviour of the system is co-responsible for present behaviour (Cilliers 1998). Most importantly each element of a complex system is ignorant of the behavior of the system as a whole, responding only to influential information available in a local context. As Cilliers (1998, 5) points out, “If each element ‘knew’ what was happening to the system as a whole, all of the complexity would have to be *present in that element.*”

Furthermore, even if it were possible to know everything about the elements of a complex system, emergent complex structures are never implicit, and cannot be predicted (Lansing 2003; Lichtenstein 2014; Standish 2008). When observing a complex system as a whole, for example a frog or a human social system, what is being viewed is not individual elements of the system but an emergent complex ‘structure’, ‘properties’ or ‘patterns’ which have formed because of the on-going dynamic influential interaction between the elements of the system over time, this being a process, generally referred to as ‘emergence’ (Cilliers 1998; Lichtenstein 2014). The notion of ‘emergence’ and ‘emergent’ is therefore implicit in the use of the term ‘complexity’.

In summary, with this Thesis complexity is a term used as a descriptor for the quality of systems that are complex, rather than complicated or simple. This descriptor embraces the notion of emergence as a process of constant change intrinsic to the formation of complex systems. Furthermore, although emergence may be impossible to observe; cause and effect relationships associated with the formation of complex systems impossible to determine; emergent structures impossible to predict, this descriptor embraces the notion that anything that is an emergent outcome of emergence, can be perceived (Goldstein, Hazy and Lichtenstein 2010, McKelvey, Lichtenstein and Andriani 2012).

Complexity and Philosophy

According to Cilliers (2007, 4) the most important contribution the consideration of complexity has actually made, is on philosophy. Cilliers (1998; 2007) also considers the modernist attempt to find a grand narrative as the one essential truth that explains

knowledge, is an avoidance of the complex and a vital first step for not doing this is a full acknowledgement of complexity.³⁸ Further to the proposition promulgated by Cilliers (2007, 4) that complexity has radically changed the way truth, objective knowledge and causality are now perceived, Woermann, Human, and Preiser (2018, 1) propose:

... a rigorous understanding of the nature and implications of complexity reveals that the underlying assumptions that inform our understanding of complex phenomena are deeply related to general philosophical issues.

Jörg (2011, 15) maintains to handle the challenges associated with a “dynamic complex reality”, new and innovative thinking is required within the social sciences regarding complexity and philosophy, because these sciences commonly “trivialise” complex phenomena and have become “entrapped in a cul-de sac in their viewing and doing science”. Schlindwein and Ison (2004) maintain however that philosophical assumptions about complexity are made without necessarily following any rational criteria and are a matter of personal preference or emotion. In accord with this perspective the Researcher’s interest in the relationship between complexity and philosophy originally stemmed from the Researcher’s emotive decision to not only acknowledge complexity as Cilliers (2007) promulgates, but also to try and personally be ‘of complexity’ every day, in a practical way. Whilst developing a personal preference to constantly try and acknowledge complexity as a daily reality, the Researcher was also aware of the limitations associated with attempting to fully comprehend something that is more complex than one’s self.

Osberg, Biesta, and Cilliers (2008) contend humans have both limited means and time to understand something in all its complexity, albeit an understanding can be gained with models which include theories and computer modelling. However, as Cilliers (1998, 2007) points out a model must necessarily be simpler than the thing that is being modelled, thus creating an intractable problem regarding understanding complexity, because complex systems are incompressible. Cilliers (1998, 2007) therefore maintains, by definition the reduction that occurs when trying to model complex systems is flawed and an understanding of complexity is never going to be perfect. If

³⁸ A modernist (modernism) perspective maintains progress is good for humanity; scientific advances are uncritically supported; the scientific method is crucial to discovering the general principles that are rational and global, thereby guaranteeing progress with knowledge (Creswell and Poth 2018; Crotty 1998; Willis 2007).

this reasoning, as it is particularly articulated by Osberg, Biesta, and Cilliers (2008, 17-18), is accepted, the Researcher's personal effort to constantly be aware of complexity could be considered both misguided and impossible.

However, becoming more knowledgeable as to how centuries-old philosophical constructs have been challenged by complexity science, has motivated the Researcher to also challenge philosophical notions previously accepted by the Researcher. Therefore, in defense of the Researcher's persistent interest in trying to be 'of complexity', this should be perceived as a quest to gain philosophical clarity, not a humanly impossible attempt to gain a perfect understanding of complexity in the sense of finding the 'truth' through rigorous observation, measurement or quantification.

Development of The Researcher's Philosophical Perspective as a Work in Progress

Development of the Researcher's philosophical perspective has been a work in progress starting around 2004 and evolving through at least four phases which have enabled the presentation of its current iteration in this Thesis as the Researcher's, *complexity reality weltanschauung*.

Phase One: Early Thoughts about Complexity Reality

The Researcher coined, and first used, the term *complexity reality* for a Philosophy and Business Management paper (Sumner 2008) written prior to the Researcher applying for PhD Candidacy. The question the Researcher was required to answer with the paper being: Does contemporary business management theory and practice give more weight to rationality, empirical science and skeptical secularism, one of two distinct approaches to human existence that emerged from the Renaissance and then stressed during the Enlightenment, with the other approach having aspects found in Romanticism? To justify an affirmative position, the Researcher drew on the work of the 20th century philosopher David Levin and his exploration of the philosophical implications of what he refers to as "the listening self" and the "hegemony of sight" (Levin 1989, 21). Levin (1989, 21) posits that both individuals and human groups may have to shift from a "discourse of seeing" to a "discourse of listening" to realise their "potential Being". Focusing on the "Question of Being", a central concern of the early-

20th century philosopher Martin Heidegger's oeuvre, Levin (1989, 6) further maintains "we need to learn a way of listening that is more ontologically attuned, more open to Being". Regarding Heidegger's capitalisation of the word 'Being', Wheeler (2017, 8) cautions it is a mistake to assume this suggests an "ethereal metaphysical something that lies beyond entities" on the basis that Heidegger's use of the term 'Being' should be more correctly interpreted as the "is-ness" of some entity, not a "higher-order being" waiting to be discovered. Levin (1989, 6) is also quick to point out that consideration of 'Being' by Heidegger is "neither a continuation of the old metaphysics nor a fall into ontotheology", therefore it is not an exploration of universal forms, an absolute and separate reality, divine power or spiritual force, as with traditional metaphysics.³⁹

In accord with this perspective, Levin (1989) maintains metaphysics is not just a reflection *on* life but also a reflection *of* life, if one avoids the traditional metaphysician's belief that the 'very essence of being' (the way things absolutely are) can be seen when unchanging, self-contained, self-sufficient and isolated objects are observed, with so-called 'objectivity'. Levin (1989) proposes traditional metaphysical reflection has been a utilitarian objectification of 'things', where the situations within which everything is embedded and from which nothing can be separated (the context of things), has been forgotten with the dominance of 'sight' within Western thinking. Similarly, Gershenson, and Heylighen (2005) propose the Western assumption that a complete understanding of any system can be gained through observation is one of the most misguided, implicit assumptions underpinning the dominating scientific worldview until the beginning of the 20th century. Cooper (1996) maintains this reductionist view of the world also rejected myth, sentimentality or any human philosophical purpose not focused on objective knowledge and maximisation of utility. The Heideggerian perspective views this as only considering things as 'ready-to-hand', meaning that things are only considered as 'what they are' in relation to their usefulness to human beings (Cooper 1996; Levin 1989). Levin (29) further proposes

³⁹ Metaphysics: traditionally the study of the first causes and principles of things, otherwise described as the study of beings (things that can said to be); studied in a specific way described by Aristotle (Greek philosopher 384-322 BC) as 'beings qua beings', or as beings so far as they are beings (Cohen 2016). Although they are not related to unchanging things or first causes many philosophical concerns that are now studied are also considered to be metaphysical problems. Examples: "the problem of free will", "the problem of the mental and the physical" (van Inwagen and Sullivan 2017, 1).

the utilitarian objectification of things leads to both an objectification and subjectification of ‘the self’ by “detaching us from our body of lived experience”.

Levin (183) also proposes the roots of this objectification of things and “humans as things”, lies in the dominance of sight emerging in Western thinking directly from the epistemological stance of ancient Greece, the culture from which Western thinking originates. To fully justify an affirmative answer to the question posed for the Business and Management paper, the Researcher explored the veracity of these ideas about the origins of a dominance of sight within Western thinking. This led to consideration of the ‘allegory of the cave’ as presented by Plato. In the Seventh Book of the *Republic* this allegory provides an explanation of Plato’s *Theory of Forms* with the proposition that ideas (Forms) possess the most fundamental kind of reality, not the material world which is known through the senses (Wright 1906).

Referring to Plato’s allegory, the early-20th century analytic philosopher Bertrand Russell (1946, 125) discusses Plato’s effort to use the sense of sight as an analogy to explain the difference between “clear intellectual vision” and “confused vision of sense-perception”. Russell was a defender of the position held by Leibniz, an 18th century philosopher-mathematician of the German Enlightenment, that the universe is fully intelligible through the natural power of reason (Bristow 2017; Rutherford 2001). Three hundred years before Russell however, the philosopher and mathematician Galileo Galilei, created the maxim “the book of nature is the language of mathematics”, thereby pioneering the scientific method of enquiry based on measurable evidence, and subject to specific principles of reasoning (Machamer 2017, 3). One hundred and fifty years after Galilei, the philosopher Immanuel Kant reasoned the world is ‘in-itself’ and independent of our concepts of it, thus ensuring by the 19th century that logic would be fully synthesised with the philosophies of mathematics and science (Kitcher 2001; Tarnas 1991; Bell 1996). Although the critique of post-Kantian philosophy, and the emergence of physics, created what Tarnas (1991, 355) describes as the “crisis of modern science”, the Kantian perception of “the subject’s influence over the observed object” resulted in human observation being given a primary role in Western science.

In contrast with what he calls the “hegemony of sight” inherent in Western thinking and the assumptions underpinning traditional science, Levin (1989, 29) explores the metaphysical construct of “the listening self” as an alternative to reifying, and allowing instead, a sense of constant change. To illustrate the construct of the listening self, Levin focuses on Johann Wolfgang von Goethe, the 18th century writer/philosopher, and member of a German proto-Romantic movement. Levin (84) asks “What did Goethe hear?” when Goethe wrote, on 7 October 1786, about “the cry of some lonely human being sent into the wide world till it reaches the ears of another lonely human being who is moved to answer it”. The physicist Fritjof Capra, also challenges the value of implicit assumptions underpinning traditional science and points out Goethe focused on the nature of the organic form, finding a pattern of relationships within an organised whole (Capra 1997, 21). To further illustrate the listening self as a metaphysical construct Levin also refers to a poem focusing on “the power of sound” written by the 19th century poet William Wordsworth. Levin (199 and 205) then proposes that unlike the metaphysics of vision, the power of sound is an open gestalt, whereas the metaphysics of vision is a “closed gestalt” that reifies and objectifies the complexity of life through the hegemony of sight that over-values “constancy, uniformity, permanence, unity, totality, clarity and distinctness”.⁴⁰

After exploring the veracity of Levin’s claim regarding the origins of the dominance of sight with Western thinking, the Researcher coined the term *complexity reality* as a possible philosophical notion more aligned with the listening self rather than the hegemony of sight. The Researcher also coined the term *hearing complexity* in an attempt to articulate this alignment, then attempted to expand on *complexity reality*, as a philosophical notion, by firstly using the term *ontology of separation* as a descriptor for an ontological perspective that is intrinsically anthropocentric, and vastly different from the one the Researcher was trying to associate with *complexity reality*. An anthropocentric perspective being an ontological perspective that considers humans as being unconnected to other objects of ‘nature’, with objects of nature also considered unconnected to each other, and inferior to humans (Capra 1997, James 2017).

⁴⁰ Gestalt theory: based on the work of late-1900s philosopher Christian von Ehrenfels; underpinned by the assumption that the quality of an entity as a ‘whole’, results from the relationship, interaction and interdependence between its parts, with Ehrenfels the first to characterise a ‘gestalt’ by asserting “the whole is more than the sum of its parts” and then proceeded to identify gestalt qualities in almost every domain (Ash 1998; Capra 1997; Rollinger and Lerna 2016; Sabar 2013).

Committing to an Action-Orientated Perspective

In the Philosophy and Business Management paper, the Researcher also proposed *complexity reality* as a philosophical notion that embraced a particular ontological stance, with the term *ontology of relationships* used to denote this distinctly non-anthropocentric ontological perspective. The epistemological assumption associated with an *ontology of relationships*, particularly the idea of *hearing complexity*, was however left underdeveloped. Primarily this was because, after receiving a positive response to the paper, the Researcher realised the notion of *hearing complexity* had to, in some way, embrace the concept of ‘deliberate action’. Action, not only in the sense of purposefully acknowledging the existence of complexity, as theoretically explored in the paper, but also within the practical, everyday context of a human suddenly and unexpectedly being confronted with, and having to effectively deal with, previously unknown emergent structures/patterns/properties, as outcomes of incomprehensible emergence. With this reflection the Researcher committed to using the term *complexity reality* as a nomenclature for the Researcher’s philosophical approach, and committed to exploring the notion that *hearing complexity*, as an epistemological construct was explicitly ‘human action’ orientated.

Phase 2: Consideration of Philosophical Complexity

By the time an application was being made for PhD Candidacy, the Researcher was keen to explore the further development of *ontology of relationships* and *hearing complexity* as ontological and epistemological assumptions respectively, that could underpin *complexity reality* as a possible philosophical perspective. Further development did not occur however, until well after the Researcher withdrew from PhD field work to re-consider issues associated with conducting classic GT research. Adhering to the tenets of classic GT, the Researcher put aside all consideration of complexity-based constructs up until the grounded theory Study presented in this Thesis, was at the theoretical coding stage.

The Researcher’s attention to philosophical perspectives therefore only recommenced with the writing of this Thesis. At this point, given the previous exploration of a ‘complexity reality’ as a possible philosophical approach, the Researcher found it

difficult to find any alignment with traditional philosophical paradigms promulgated within the ambit of the social sciences. However, the Researcher acknowledged *complexity reality* as a philosophical perspective had to be developed further before it could be credibly presented in this Thesis. The Researcher was aware this would require a much greater understanding of the relationship between complexity and philosophy and therefore embarked on a more extensive consideration of philosophical complexity by exploring ‘complexity thinking’, as developed by the sociologist and complexity philosopher Edgar Morin, and ‘critical complexity’, as developed by Cilliers and his colleagues.

Consideration of Complexity Thinking and Critical Complexity

Morin (2007, 5) maintains that although the meaning of the word ‘complexity’ comes from the Latin *complexus* which means “what is woven together” it made its first appearance “de facto” with the second law of thermo dynamics, and by the 1940s-50s was held within a “nebula” of Information Theory, Cybernetics and General Systems Theory. Also, whilst the meaning of complexity appeared in the cyberneticist and systems scientist Ross Ashby’s work in the 1960’s, Morin proposes it remained hidden within the work of the early cyberneticist von Neumann and then became confused with terms such as ‘chance’ and ‘disorder’. That is until the work of the Santa Fe Institute in the 1980’s when the word ‘complexity’ was essential for defining the types of complex systems being studied at SFI “where the classical concept was unable to be considered” (5). Morin (6) postulates work at the Santa Fe Institute, together with the conception of the notion of ‘emergence’, eventually led to the use of the word ‘complexity’ to encompass all the ideas associated with chaos, disorder and uncertainty. The term ‘complexity’ was used to overcome the “theoretical vacuum” that had to be resolved as these ideas appeared. However, Morin (6) refers to this early work on complexity and emergence as ‘restricted complexity’ because whilst enabling computer modelling of complex systems, it remains within the epistemology of classical science.

Unlike ‘restricted complexity’, Morin (2007, 21) proposes ‘general complexity’ relates to all fields and considers notions that restricted complexity does not give a lot of thought to because it “relates to our knowledge as human beings, individuals,

persons and society". Morin (1992a) also points out that all human knowledge supposes a 'knowing mind', the possibilities and limits of which are those of the human brain functioning within the context of culture (society). The problem of the limits of the human mind being successfully "neutralised" however by classical science keeping the "observer/conceiver/experimenter" out of the way with subjectivity eliminated by the consistency of observations and the verification of experiences (Morin 1992a, 85-86). In addition, because cosmic order could only produce an abstract observer, human observers, confused about what is appearance or what is reality, considered disorder to be something that occurs because of human ignorance, as opposed to the all-knowingness of the abstract omniscient observer, who would know all is in order despite the human ability to not see it. The loss of this certainty first appeared as the limits of the human observer became apparent when consideration was given to the origin and development of the universe, leading to the discourse of complexity as a discourse of uncertainty where notions which should logically exclude each other such as order and disorder, "automatically hug each other" (Morin 1992a, 85-86). Furthermore, Morin (1992a, 142) maintains:

It is in this perspective, both impossible and forbidden by classical science that the path of new theoretical and epistemological development is opened; this development necessitates not only that the observer observe himself observing systems, but also that he make an effort to know his knowledge.

Therefore, in comparison to restricted complexity Morin (2007, 6) positions general complexity as an "epistemological rethinking" where there is an effort to comprehend the relations between the whole and its parts, the principle of reduction therefore being replaced by "a principal that conceives the relation of whole-part mutual implication". Whereas the reductionist "paradigm of simplification" requires a choice between two ontological views of systems, the observer when describing a system either correctly reflects that it is a real physical category, or alternatively only considers a system to be a "mental category or ideal model, merely heuristic", which is then applied to phenomena to control, master or model the phenomena (Morin 1992a, 379). In accord with Levin's perspective, and contrary to reductionism, Morin (2002, 333) states "the point of view of complexity tells us precisely that it is crazy to believe we can know things from an omniscient point of view".

Instead of a “simple mode of thinking” where one believes one possesses the truth; that knowledge only reflects what is and where there is no need to know oneself to know the object, Morin (2002, 334) maintains there is “complex knowing” that demands a “self-observing” on the part of the “observer-conceiver”. With both complex knowing and self-observing being “some of the attainments and modifications necessary for complex thinking” (Morin, 334). Furthermore, Morin (1992b, 141) considers the observer-conceiver as a necessary “presence”, otherwise there would be a serious deficiency with the principle of complexity:

... the observer is also a part of the definition of the observed system and the observed system is also a part of the intellect and culture of the observer-system. A new systemic totality is created in and by such relation which encompasses both.

Complexity thinking, unlike omniscient thinking of the detached abstract observer, is therefore always local and situated in a specific time and place. Neither is complex thinking ‘complete thinking’ because “it knows in advance that there is always uncertainty” thereby avoiding arrogant dogmatism while at the same time not being resigned to scepticism (Morin 2002, 339). Whilst stating Morin is “largely correct” Cilliers (2007, 4) cautions that a “general” understanding of complexity rather than a “constricted” one should not be confused with an excuse for relativism and an argument for “sloppy work”.⁴¹ With the aim of establishing a non-relativist and moderate postmodernism as an appropriate paradigm for a philosophy of complexity, Cilliers (1998, 2005, 2016) proposes a “middle-way”, between the excesses of postmodernism and the reductionism of modernism, on the basis that characteristics of a complex system are “echoed” in postmodernist theory.⁴² Therefore, the criticism

⁴¹ Relativism is defined in various ways as there appears to be little, if any, agreement amongst philosophers on how it should be defined, with several definitions as to what it might be and several “varieties” (Braghamian and Carter 2017, 25). For the purposes of this Thesis, relativism is defined as an epistemological view where, amongst other things truth and falsity; standards of reasoning and procedures of justification, are outcomes of different conventions and frameworks of assessment, with “their authority confined to the context giving rise to them” (Braghamian and Carter 2017, 1).

⁴² Postmodernism originated in Europe in the 1950-60’s and critical of the negative results of progress, rejects the scientific method as the sole source of knowledge; promulgates ways of knowing should be based on lived experience and rejects mind/body and knowledge/experience dualism and cognitive/intellectual rationality. Knowledge claims must be positioned within a multiplicity of perspectives and group affiliations, within the context of contemporary conditions which are often negative, as demonstrated by hierarchies of control and power and multiple meanings of language. Uses collaborative research processes (Aylesworth 2015; Alvesson, Mats, and Sköldberg 2018; Chun 2016; Cilliers 1998; Denzin and Lincoln 2008; 2011; Ormston et al 2014; Willis 2007).

that postmodernism's rejection of a grand narrative will lead to an atomistic view of our social world as antagonistic, unconnected, individual agents is rejected by Cilliers (1998, 2005). In contrast to the argument a postmodernist perspective implies that "anything goes", with a relativism that ultimately leads to knowledge being ungrounded and subjective, Cilliers (1998, 31) proposes postmodernism can be engaged with from a different perspective of "connectionism" as a general model for complex systems.

From this perspective, drawing on the work of the postmodernist philosopher Jacques Derrida, Preiser, Cilliers, and Human (2013, 264) maintain deconstructionism "could play a vital role" in gaining a deeper understanding of general complexity as conceived by Morin. However, Derrida has provided several disparate definitions of 'deconstructionism', as well as avoiding any definition, since first gaining notoriety at the end of the 1960's by apparently coining the term from Heidegger's construct of 'destruction' (Lawlor 2015; Royle 2003). Nevertheless, Preiser, Cilliers, and Human (2013, 266) propose the acknowledgement of complexity "demands a critical stance that includes deconstructing (opening, transforming, not dismissing) the foundations and limits upon which knowledge is built". In addition, these scholars propose there is a crisis with 'critique' that comes from the changes it has undergone since the formation of the "critical project with Kant" when the meaning of critique coincided with the process of judgement as in a court of law (Cilliers 1998, 2007; Preiser, Cilliers, and Human 2013).

Preiser, Cilliers, and Human (2013, 267) also maintain, with Derrida's deconstruction there is a double bind exposed, where at the heart of 'critique' rather than judgement, in the context of wrong-doing, there is a "constant movement of bringing together and pulling apart". Furthermore, there is an on-going refrain in the work of Cilliers (1998, 2005), Preiser, Cilliers, and Human (2013), Human and Cilliers (2013) and Heylighen, Cilliers, and Gershenson (2006) that Derrida's conceptualisation of deconstruction albeit within the context of language, can provide a "deep understanding" of complex systems. However, drawing on Derrida's double-bind, Preiser, Cilliers, and Human (2013, 269) appear to conflate deconstruction and Morin's complexity thinking into 'critical complexity', a form of thinking proposed with a "double movement" where

the “concept and counter point (the *yes* and *no*) are thought simultaneously” suggesting critical complexity is what Morin calls the ‘logical core’ of complexity.

The ‘double movement’ referred to by Preiser, Cilliers, and Human (2013, 269) also appears to be conceptually aligned with Morin’s ‘dialogical principle’, however, this is only one of three principles underpinning Morin’s construct of complex thought, these being the dialogical, the recursive and the holographic principles (Morin 1992a, 2002, 2007, 2008). Morin (2007, 16) proposes the “*logical core* of complexity” is “dialogical” in that paradoxes evident within complexity can be faced by considering the “complementarity of antagonisms”; examples of these paradoxes being traditional logical opposition such as separability-inseparability, cause-effect, whole-parts, life-death. The dialogic principle therefore “allows us to maintain duality at the heart of unity by associating two terms that are at the same time complimentary and antagonistic” (Morin 2008, 49). The recursive principle focuses on the recursive process where “both the products and the effects are at the same time causes and effects of what produces them” (49). Put simply, the holographic principle proposes, the part is in the whole and the whole is in the part. Morin (50) also points out the dialogical, recursive and holographic principles are related, “the idea of the hologram linked to the recursive idea, which is in part linked to the dialogic idea”.

After considering complexity thinking and critical complexity and the differences between these complexity philosophy perspectives the Researcher’s philosophical approach further evolved.

Phase Three: Consideration of Ontological and Epistemological Issues

Clearly Morin (1992a, 2002, 2007) and Cilliers (1998, 2005, 2007) consider major consequences to philosophy that have been catalysed by complexity science, as an emergent new scientific paradigm in the 21st century, to be epistemological in nature. However, an implicit dominating idea with the work of both Morin and Cilliers is that complexity is a reality. This is indicated by their concern that, firstly there should be an acknowledgment of complexity, and their respective efforts (Cilliers 1998, 2005, 2007; Morin 1992a, 1992b, 2002, 2007, 2008) to develop a new post-Newtonian/Cartesian approach, to deal with the complexity that is being acknowledged as a reality, as exemplified by Heylighnen, Cilliers, and Gershenson

(2006, 7) when they state “the building blocks of reality are not material particles but abstract relations and the complex organisations that form them”.

While defending an interpretative epistemological stance Cilliers (2005) also clearly demonstrates an acknowledgment that complexity is a reality rather than just a human-constructed abstract idea.⁴³ Additionally, when discussing the work of contemporary philosophers, particularly Mary Hesse, Paul Churchland and Alex Argyros, Cilliers (1998) clearly accepts, and at times overtly agrees with a moderate form of scientific realism as promulgated by Mary Hesse, and the realist positions of Churchland and Argyros.⁴⁴ Morin also indicates complexity is an ontological reality by using terminology which demonstrates this stance, such as referring to the complexity of the “physical foundation of what we call reality” (Morin 1992b, 381; 2014). Within the context of discussing complexity and human action, Morin (2008, 57) also points out ‘complexity thinking’ provides a way to remember the changing nature of “reality”.

Despite clear indications that the work of both Morin and Cilliers is underpinned by the dominating idea that complexity is an ontological reality, the Researcher felt the distinction between ontology and epistemology is often blurred, with much attention given to the consideration of complexity as an epistemological issue, and the need for a new way of knowing about the nature of reality. It appears however that this blurring is to be expected, as indicated by Allen and Varga (2007, 19) who point out, the most fundamental challenge that complexity makes regarding philosophy is that ontology and epistemology can no longer be considered as separable. Furthermore, for adherents of critical complexity, dealing with this challenge appears to provide the rationale for the study of complex phenomena that are philosophically situated within a postmodern poststructuralist paradigm (Cilliers 1998; Heylighen, Cilliers, and Gershenson 2006). Cilliers (1998, 135) specifically proposes a postmodernist epistemology to deal with the challenge to philosophy posed by complexity, because in his opinion postmodern and post-structural theories “have a sensitive affinity to complexity”. In contrast to

⁴³ Interpretivism maintains there is an external reality but the scientific method will not provide a way to objectively know about it; no one has direct access to external reality only a version of it that is socially constructed; to know about this external reality requires an effort to interpret (make sense of) the meanings others have about it (Creswell and Poth 2018; Lincoln and Guba 1985; Ormston et al. 2014).

⁴⁴ Realism proposes there is an objective reality (absolute existence) independent of language and conceptualisations created by the human mind (Chun 2016; Muller and Livingston 1995).

Cilliers however, Morin does not to adhere to any known paradigm (Fiedler-Ferrara 2010; Monturi 2004).

Gaining Philosophical Clarity

After considering the fundamentals of complexity thinking and critical complexity, the Researcher agreed with the dominating idea underpinning philosophical complexity (general complexity), as developed by Cilliers and Morin, that complexity is a reality. The Researcher also recognised, that while this reality is external to the human mind, every human and every human's mind is of this reality, as expressed by the whole-part mutual obligation inherent in a general complexity approach and the complexity thinking holographic principle specifically (Morin 2002, 2007, 2008). However, despite this dominating idea, further blurring the distinction between ontology and epistemology, the Researcher was not fully convinced this distinction should be blurred and decided to continue contemplating *ontology of relationships* and *hearing complexity* as ontologically and epistemologically separate conceptualisations. Also, because the Researcher was not fully convinced postmodernist theories have an affinity with complexity as a reality, particularly post-structuralist theories, a decision was made to abandon contemplation of a postmodernist perspective as proposed by Cilliers (1998, 2007). Subsequently, for the further development of the Researcher's philosophical approach, the Researcher perceived the praxis orientation of *complexity thinking* to be potentially more valuable than Derrida's notions of deconstructionism which underpin critical complexity. The Researcher therefore remained committed to specifically developing the notion of *hearing complexity* as an epistemological construct that was somehow explicitly 'action' orientated and commenced exploring praxis 'intended action' as proposed by Morin (1992a, 2002, 2007, 2008).

Consideration of Praxis as Intended Action

Drawing the cybernetic conceptualisation of 'the machine' as a physical being, rather than a social product or material instrument, Morin (1992a, 151) uses the term 'machine-being' to denote a physical being that 'organises', and states 'active organisation' is a fundamental fact of "physis" (nature). It is within this context Morin

(xviii, xxxvi) introduces the term 'praxis' as "intended action" and states praxis is "central to life" and essential to knowledge. After establishing this fundamental premise, Morin (155) finally considers praxis as the "set of practises which effect transformations, productions, performances starting from competence" (155). Then, moving beyond the cybernetic notion of machine, Morin (159) re-enforces that 'production' is to give existence; to create; to produce diversity; alterity (otherness) and that the key ideas of praxis, production, transformation "run through, *physis*, biology, and come to ferment at the heart of our contemporary societies".

After considering Morin's proposition that the relationship between praxis, production and transformation is fundamental to the nature of all living things, the Researcher started considering *hearing complexity* as being implicitly action orientated. This led to an investigation of praxeology per se, outside the context of Morin's work.

Praxeology as an Epistemology of Practice

Praxeology, as the 'science of human action', was developed by the economist Ludwig von Mises with his seminal work *Human Action* published in 1949 (Gasparski 2008; Lachmann 1951). Isolated from the influence of Mises, the development of praxiology as a philosophy of practicality was undertaken by the philosopher Tradeusz Kotarbinski, with his first work *Szkice Praktyczne (Practical Essays)* published in 1913, and his major work *Traktat o Dobrej Robocie (Treatise of Good Work)* published in 1955 (Gasparski 2008, 2013). Early origins of both praxeology, as promulgated by Austrian scholars, and praxiology, as promulgated by Polish scholars, are credited however to the French scholars Louis Bourdeau and Alfred Victor Espinas. In the 1880's Bourdeau used the term praxeology to denote the 'science of functions', and in 1890 Espinas proposed praxeology was a general area of the 'science of techniques', including abilities that are conscious practical actions involving invention, initiative and/or freedom (Gasparski 2013; Ostrowski 1968). However, as Nowak-Posadzy et al. (2017) point out, now there are many approaches to praxeology as the general study of human action including, functional, technological, methodological, operational, economic, ethical, epistemological, decisional and managerial.

Specifically, the Austrian approach as promulgated by von Mises was an aprioristic logic of action, claiming *a priori* validity for the propositions of praxeology to explain intentional action as purposeful behaviour, for an understanding of the field of economics (Gasparski 2013; Lachmann 1951).⁴⁵ Also focusing on intentional action, praxiology as developed by Kotarbinski is considered, in comparison to the work of Mises, to be a general methodology, an ‘epistemology of practice’ and therefore a science of ‘means’ not ‘ends’ (Gasparski 1996, 2013). Kotarbinski (1965, 8) also aligned praxiology with “the theory of complex wholes”, which he proposed could be called “a theory of events”. Kotarbinski made this suggestion around the same time Ashby’s work in the area of systems science was challenging traditional thinking about ‘organisations’ that ‘self-organise’. Kotarbinski (1965, 8) noted the theory of complex wholes “has not yet developed into a system of its own”, nevertheless he made a direct connection between this possible ‘new theory’ of complex wholes and praxeology:

That discipline that on which praxeology depends might equally well be called, and is sometimes called, the theory of complex wholes. Complex wholes have various constructions and differ, among other ways, in the diversity and complexity of the relationships connecting their component parts.

Furthermore, Kotarbinski (1965, 9) maintains “these relationships involving the general theory of complex wholes and events underlie praxeology rules”. Drawing on the work of the early 20th century philosopher Georges Hostenet, Kotarbinski (1965, 10) provides a definition of action and proposes, “to act is to change reality in a conscious way so as to “include in reality” those factors that determine change from initial conditions to different ones”. Regarding bringing about change in a conscious way, praxiologist and management philosopher Wojciech Gasparski (2008, 12) proposes praxiology “offers an insight into the reality it studies”. However, the use of what praxiology discovers depends on the person involved in the action, and their reflection of their own practicality, therefore the more they are a “reflective practitioner the greater is the efficacy of his or her action”. Gasparski (2008, 12) defers to the definition of a reflective practitioner, as developed by the 20th century philosopher Donald Schön, as being the ability to acquire new abilities and knowledge,

⁴⁵ As established by the 18th century philosopher Immanuel Kant, *a priori* knowledge or judgement is independent of experience and therefore not subject to verification or falsification on the ground of experience and facts (Hanna 2018; Lachmann 1951; B. Russell 2017).

design an action conceptually and the ability to evaluate an action “multidimensionally” in an action environment (practical situation). Furthermore Gasparski (2013, 6) perceives practical situations as a “niche” of the person undertaking action, maintaining “the set of these niches is a kind of ecology (*oikos* and *logos*) of practical situations”. The suggestion that practical situations within which intended action occurs is a ‘kind of ecology’ stimulated the Researcher to return to Morin (2007; 2014) and further investigate the principle of ‘ecology of action’.

Consideration of the Principle of Ecology of Action

Morin (2002, 337) considers ‘ecology of action’ to be a fundamental principle of complexity, with this principle making it clear that action “escapes the will of the actor to enter into the play of interretroactions within society at large”. Expressed in various ways by Morin fundamentally the notion of an ecology of action means, as soon as an action is activated, a process of intra-retro-actions occurs which modify, divert and sometimes reverse intent of the person who undertook the action, the consequence of which is this person, as the ‘author’ of the action, has no control over the trajectory of their own actions (Morin 2007, 2014). Furthermore, the notion of an ecology of action aligns with the notion of ‘ecologised thought’, this being explained by Morin (Morin as quoted by Roque 2011, 105), as:

... not only is it impossible to separate an autonomous being (*autos*) from its cosmophysical and biological habit (*oikos*), but we must also think that *oikos* is in *autos* without, however *autos* ceasing to be autonomous. In fact, we are integrally children of the cosmos. However, through evolution, through the particular development of our brain, through language, through culture, through society, we have become strangers to it; we have become distanced and marginalised from it.

However, despite the inherent paradoxes and limitations associated with both an ecology of action, and ecologised thought, Morin (2014, 19) has a distinctly pragmatic response to his own question “What can we do?” in regards to the challenge posed by the ecology of actions, stating “sometimes we are obliged to take a decision, because not to take a decision is a type of decision”, even when all decisions will involve uncertainty about what the consequences will be.

Outcome from Considering Intended Action and Ecology of Action

After consideration of both praxis as intended action and the ecology of action, as proposed by Morin (1992, 2002, 2007, 2008, 2014), and praxiology as intended action, as proposed by Kotarbinski (1965) and Gasparski (1996, 2008, 2013), the Researcher developed *sensing emergents* as a praxiological concept, considering the concept of *sensing emergents* as a possible improvement on *hearing thinking* as an epistemological notion underpinning *complexity reality*. ‘Sensing’ was considered an appropriate term, given the various meanings of ‘sense’ as a verb, the gerund or present participle of which is ‘sensing’, with these meanings including: “discern, feel, get the impression of, recognise, pick up, be/become cognizant of, be/become aware of, be/become conscious of, get/come to know, distinguish, make out, identify, comprehend, apprehend, discover, learn, appreciate, realise, suspect, just know, intuit, conceive, catch onto, twig and cognize”.⁴⁶ The Researcher has used ‘sensing’ therefore to encapsulate an eclectic range of acts that could generally be considered as cognitive actions and therefore analogous with ‘perceiving’, a concept that broadens the notion of ‘hearing’ without losing intended meaning. The use of the term ‘praxiology’ indicating that perceiving is a reflexive activity of deliberate human agency; the term ‘agency’ being broadly defined as the performance of intentional acts and the term ‘reflexivity’ being broadly defined as an explicit consciousness, and questioning of, one’s assumptions and prejudices (Gentles et al. 2014; Hibbert, Coupland, and MacIntosh 2010).

Further Consideration of Social Science Philosophical Paradigms

Following the Researcher’s consideration of ‘action’ from the perspective of Morin (1992a, 1992b, 2002, 2007, 2008, 2014), Kotarbinski (1965) and Gasparski (1996, 2008, 2013), before completely committing to the further development of *complexity reality* as a possible philosophical perspective, the Researcher returned to a review of philosophical paradigms promulgated within the ambit of the social sciences to ensure there was no alignment with the Researcher’s evolving perspective. This review

⁴⁶ Google Dictionary

included an exploration of the main constructs of critical realism, speculative realism and pragmatism.⁴⁷

Phase 4: Adopting a Complexity Reality Weltanschauung

Once the Researcher had explored critical realism, speculative realism and pragmatism sufficiently to have a reasonable working knowledge of these paradigms, a review of the conceptual assumptions underpinning *complexity reality*, helped clarify whether any of these philosophic perspectives would be appropriate for articulating the Researcher's perspective, as required for this Thesis. This resulted in critical realism being deemed inappropriate. The Researcher is not satisfied this perspective adequately addresses the emergent 21st century phenomenon, that an awareness of complexity as an ontological reality, is catalysing new epistemological questions regarding the capacity of humans to fully comprehend this reality. Taking into account that critical realism is a broad alliance of social theorists, nevertheless, as Sousa (2010) points out it generally aims to understand and make sense of the world by excessively describing and explaining it, with full explanation and clarity of understanding being the ultimate purpose of critical realism

Given the incomprehensibility issue associated with complexity, critical realism's significant focus on trying to explain 'deep' causal mechanisms is problematic for the Researcher and signals that there possibly needs to be a re-think regarding ontological and epistemological assumptions underpinning realism in the 21st century. Regarding speculative realism, having only gained a broad and basic understanding of this recently emerged philosophical perspective, the Researcher was tentative about making a finite decision about the veracity of this new form of realism. However, it

⁴⁷ Critical realism proposes things exist independently of a human's perception of them therefore the notion that from a commonsense point of view, human perceptions of reality directly reflect the objective nature of reality, is not acceptable to critical realism (Archer et al. 2019; Bhaskar, n.d.; Sousa 2010). With speculative realism, the 'speculative turn' is deemed to be a rejection of long-standing postmodernist philosophical traditions (Basile 2018; Hägglund 2011; I. James 2017; Lillywhite 2017; Peterson 2018; Tremblay 2017). Speculative realists promulgate there is a world outside the mind that goes on irrespective of whether any human is conscious of it, this is a controversial rejection of Immanuel Kant's central proposition that phenomenon depend on the human mind to exist (Harman 2011; Shaviro 2010) and is considered to be a rejection of 'correlationism', this being the belief that all existence is reducible to the human experience of existence. Pragmatism is not about representing the inner nature of an outer world in an accurate way, therefore it is anti-representationism. Thoughts are not considered to be mental representations which correspond to external states or objects; there is no separation of the natural and social worlds and knowledge acquisition is considered to be a way of dealing with life and everyday demands. Therefore pragmatism is an active process of 'doing' in action rather than inquiry being the pursuit of a perfect representation of reality (Baert 2003; Hookway 2016; Kooperman, 2006).

does appear the Researcher's efforts to encapsulate the reality of complexity, with a radical ontological position, is compatible with speculative realism, particularly when considering a comment made by the philosopher Graham Harman who, along with a group of other contemporary philosophers, is now a leading proponent of OOO, this being Object Orientated Ontology. Harman (2011, 22) comments that absolutely all objects, with no exceptions and regardless of their nature, are "things that exist even when we sleep or die, and which unleash forces on one another whether we like it or not", the Researcher is inclined to add to this comment ... and whether we know about them, or understand them ... or not.

After contemplating the core notions underpinning critical realism and pragmatism, it was apparent to the Researcher, there is a more appropriate fit between the Researcher's nascent philosophical position and the notions underpinning speculative realism and pragmatism, rather than critical realism. The Researcher has therefore drawn on philosophical notions associated with pragmatism and speculative realism to further develop a *complexity reality weltanschauung* with sufficient conceptual dimensions for presentation in this Thesis, as a set of *complexity reality* hypotheses.

APPENDIX 4:

Glossary of short descriptions of the dimensions, elements, aspects and/or contexts of the sub-core and higher sub-core categories of the Getting On-The-Same Page Theory.

Glossary of short descriptions of the dimensions, elements, aspects and/or contexts of the sub-core and higher sub-core categories of the Getting On-The-Same-Page Theory IN ALPHABETICAL ORDER	
Angst-ing	<p>Emotional stressing, simultaneously occurring with <i>distinguishing-not-on-the-same-page</i> during work team occasions when de Bono's tools are not being utilised.</p> <p>DIMENSIONS</p> <p>Mild Angst-ing Tolerable emotional stressing, simultaneously occurring with <i>distinguishing-not-on-the-same-page</i>.</p> <p>Extreme Angst-ing Intolerable emotional stressing, simultaneously occurring with <i>distinguishing-not-on-the-same-page</i>.</p>
Bettering	<p>The disposition a prospective user or user of de Bono's tools has towards learning.</p> <p>DIMENSIONS</p> <p>No-bettering Strength of a disposition towards learning, underpinned by a belief that there is no need to learn anything new and different from what is already known, experienced or feels comfortable.</p> <p>Mild Bettering Strength of a disposition towards learning, underpinned by a belief learning is useful, until it gets too difficult to justify the effort it requires.</p> <p>Strong Bettering Strength of a disposition towards learning, underpinned by an unwavering belief that making an effort to learn and personally develop, is always necessary and valuable.</p>
Blocking	Intentional non-utilisation of de Bono's tools when being introduced to the tools.
Closing Down	Disengaging from any utilisation of de Bono's tools, unless there is a requirement to utilise the tools in a work team context by someone with the authority to stipulate this requirement.
Distinguishing	<p>Identifying types of cognitive interplay during work team occasions when de Bono's tools are either utilised or not utilised, that are perceived as indicating a work team is either on-the-same-page or not-on-the-same-page.</p> <p>DIMENSIONS</p> <p>Distinguishing-On-The-Same-Page Identifying types of cognitive interplay during a work team occasion when de Bono's tools are utilised, that are perceived as indicating the work team is on-the-same-page.</p> <p><i>Particular Types of cognitive interplay identified as only occurring during a work team occasion when the tools are utilised and specifically indicate a work team is on-the-same-page:</i></p> <p><i>Collective Purposing</i> <i>Collective Aligning</i> <i>Collective Equalising</i></p> <p>Distinguishing-Not-On-The-Same-Page Identifying types of cognitive interplay during a work team occasion when de Bono's tools are not utilised, which is perceived as indicating the work team is not-on-the-same-page.</p> <p><i>Particular Types of cognitive interplay only occurring during a work team occasion when de Bono's tools are not utilised that are perceived as indicating a work team is not-on-the-same-page:</i></p> <p><i>Polarising</i> <i>Powering (expert powering, position powering, social powering)</i> <i>Holding-Back</i> <i>Bouncing-Around (ad-hoc cogitating, going-off-on-tangents)</i></p>

Enabling	Stage Three of <i>getting-on-the-same-page</i> as a cognitive capability process of three stages.
Fiddling	<p>Self-initiated, reactive attempts to stop the types of cognitive interplay that always indicate a work team is not-on-the-same-page, from occurring during a work team occasion when de Bono's tools are not utilised.</p> <p>DIMENSIONS</p> <p>Informal Fiddling Self-initiated, spontaneously reactive attempts to stop the types of cognitive interplay that always indicate a work team is not-on-the-same-page, from occurring during a work team occasion when de Bono's tools are not utilised.</p> <p>Formal Fiddling Self-initiated, premeditated reactive attempts to stop the types of cognitive interplay that always indicate a work team is not-on-the-same-page, from occurring during a work team occasion when de Bono's tools are not utilised.</p>
No-Wavering	Decisively maintaining a preference for the utilisation of de Bono's tools during work team occasions
Rationalising	Adopting plausible reasons for abandoning informal <i>fiddling</i> .
Regulating	<p>Self-initiated guidance of personal thinking while utilising de Bono's tools.</p> <p>DIMENSIONS</p> <p>Mild Regulating Self-initiated guidance of personal thinking while utilising de Bono's tools, that is sometimes undertaken consciously.</p> <p>Moderate Regulating Self-initiated guidance of personal thinking while utilising de Bono's the tools that is always undertaken consciously</p> <p>Strong Regulating Self-initiated guidance of personal thinking while utilising de Bono's tools, that is always undertaken consciously to deliberately activate improved thinking.</p>
Straining	<p>Confluence of emotional discomfort and utilisation of de Bono's tools.</p> <p>DIMENSIONS</p> <p>Minimum Straining Confluence of discomfort and utilisation of de Bono's tools at a level of discomfort that never hinders utilisation of the tools.</p> <p>Maximum Straining Confluence of discomfort and utilisation of de Bono's tools at a level of discomfort that always hinders utilisation of the tools.</p>
Structuring	<p>Changes in cognitive capability with the utilisation of de Bono's tools.</p> <p>PHASES</p> <p>Structuring New Thinking Phase of <i>structuring</i> that commences during Tooling-Up and lasts until the transition of <i>moderate structuring</i> to <i>strong structuring</i> during Tensing.</p> <p>Structuring Familiar Thinking Phase of <i>structuring</i> that commences when <i>strong structuring</i> emerges during Tensing and lasts until the transition of <i>regulated structuring</i> to <i>nuanced structuring</i> during Enabling.</p> <p>Structuring Nuanced Thinking Phase of <i>structuring</i> that commences when <i>nuanced structuring</i> emerges during Enabling and only ends if de Bono's tools are no longer utilised.</p>

Structuring

... continued.

DIMENSIONS

Weakest Structuring

Change in cognitive capability with the utilisation of Bono's tools, that is always inconsistent and therefore unstable.

Weak Structuring

Change in cognitive capability with the utilisation of Bono's tools, that is sometimes consistent and therefore sometimes unstable.

Moderate Structuring

Change in cognitive capability with the utilisation of de Bono's that is mostly consistent and therefore mostly stable.

Strong Structuring

Change in cognitive capability with the utilisation of de Bono's tools that is always consistent and therefore always stable.

Robust Structuring

Nuanced change in cognitive capability with primary and secondary utilisation of de Bono's tools that is always consistent and therefore always stable.

Primary Utilisation

Utilisation of de Bono's tools by a user to deal with work-based issues when they are a member of a work team utilising de Bono's tools during a work team occasion and to deal with private issues on their own.

Secondary Utilisation

Utilisation of de Bono's tools by an enabled user, to deal with issues specifically associated with them helping people to utilise de Bono's tools, for the specific purpose of getting work teams on-the-same-page during work team occasions.

ELEMENTS

Cognitive Linguaging

Changes with the lexicon of personal thinking when utilising de Bono's tools.

ASPECTS

Linguaging general thinking

Changes with the lexicon of personal general thinking when utilising de Bono's tools.

Linguaging operational thinking

Changes with the lexicon of personal thinking while utilising a single de Bono tool.

Cognitive disciplining

Changes with the orderliness of personal thinking when utilising de Bono's tools.

Cognitive Focusing

Changes with personal cognitive intent when utilising de Bono's Purpose Focus tool.

Cognitive Levelling

Changes with personal cognitive modus operandi when utilising de Bono's tools during work team occasions.

ASPECTS

Focussed Levelling

Changes with personal cognitive modus operandi during work team occasions when specifically utilising de Bono's Purpose Focus tool.

Levelled Forwarding

Changes with personal cognitive modus operandi during work team occasions when utilising de Bono's tools, specifically associated with communicating outcomes from personal utilisation of a single de Bono tool.

Cognitive Listening

Changes with personal cognitive ability which result in comprehending another person's thinking when the other person articulates their utilisation of de Bono's tools.

ASPECTS

Hearing Operative Thinking

Hearing outcomes from the utilisation of de Bono's tools that indicate operacy has been implemented with another person's thinking.

Hearing General Thinking

Hearing another person's general thinking lexicon that indicates if they are using appropriate general thinking modes when they are utilising de Bono's tools

<p>Structuring ... continued.</p>	<p>CONTEXTS</p> <p>In-Mind An individual user privately utilising de Bono's tools.</p> <p>In-Mind-In-Relationship An individual user privately utilising a de Bono tool or tools when one or more other people during a work team occasion the user is involved in, are privately utilising the same tool or tools at the same time as the user.</p> <p>In-Mind-In-Enabling An enabled user privately utilising at least one of de Bono's tool sets to deal with the issue of helping a work team get on-the-same-page with the utilisation de Bono's tools.</p> <p>In-Mind-In-Facilitation An enabled user privately considering how de Bono's tools are being utilised by one or more other people during a work team occasion, in order to help them, get on-the-same-page.</p>
<p>Supressing</p>	<p>Self-induced tempering of <i>straining</i>.</p> <p>DIMENSIONS</p> <p>Robust supressing Effective self-induced tempering of <i>straining</i>.</p> <p>Frail supressing Ineffective self-induced tempering of <i>straining</i></p> <p>Nil supressing No self-induced tempering of <i>straining</i>.</p>
<p>Taking-It-On.</p>	<p>Committing to helping people in the substantive area of business organisations to utilise de Bono's tools.</p>
<p>Tensing</p>	<p>Stage Two of <i>getting-on-the-same-page</i> as a cognitive capability process of three stages.</p>
<p>Tooling</p>	<p>Term used to denote a higher-order property of <i>getting-on-the-same-page</i> as the core category of the Getting On-The-Same-Page Theory, theoretically conceptualised as an emergent system of double reinforcing (positive) feedback loops, caused by sustained causal relationships between particular dimensions of <i>structuring</i>, <i>regulating</i>, <i>bettering</i>, <i>supressing</i> and <i>straining</i>, as lower-order properties of each stage of <i>getting-on-the-same-page</i>.</p> <p>DIMENSIONS</p> <p>Nascent Tooling Dimension that emerges during Tooling-Up, the first stage of getting-on-the-same-page.</p> <p>Maturing Tooling Dimension that emerges during Tensing, the second stage of getting-on-the-same-page.</p> <p>Nuanced Maturing Tooling Dimension that emerges during Enabling, the third stage of getting-on-the-same-page.</p>
<p>Tooling-Up</p>	<p>Stage One of <i>getting-on-the-same-page</i> as a cognitive capability process of three stages.</p>
<p>Tooled Strategising</p>	<p>Proactive utilisation of de Bono's tools to strategically create and respond to opportunities to help people utilise de Bono's tools within the substantive area of business organisations.</p>

