A relational re-view of collective learning:

Concerts, condiments and corrections

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Dissertation submitted to the
Faculty of Arts and Social Sciences
University of Technology, Sydney
In fulfilment of the requirements for the degree of

Doctor of Philosophy

in

Education

PhD
2009

Certificate of Authorship/Originality

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Acknowledgements

A thesis, particularly one on collective learning, is considered an individual accomplishment but achieved through the generosity of collective endeavours from many people. I wish to thank Paul Hager for his unconditional encouragement and guidance from beginning to end. Paul was both my thesis supervisor and the Chief Investigator on an Australian Research Council Discovery grant project where I participated as researcher. Paul re-ignited my appreciation for the practical relevance of philosophical thought and guided me through the thesis journey. I benefited also from the expertise of Jim Athanasou, my initial supervisor and Hermine Scheeres, my co-supervisor and discourse coach. They guided me through important conceptual and research landmarks and offered me alternative ways of thinking about concepts and their meanings.

I thank all the research participants in the numerous organisations that formed my fieldwork portfolio, some of whom are included in this thesis. These research participants, who remain necessarily anonymous, allowed me to gain glimpses of their lives as people, their lives at work and their understandings of learning. Through my interactions with them, I gained a renewed understanding of my own learning as a practitioner turned researcher.

I am grateful for the stimulating discussions I have had with students and faculty at UTS: Education, especially Geof, Bernice, Kerry, Donna and Oriana who were always ready to offer advice, literature, coffee, batteries and shoulders when required. I benefited immensely from writing with John Halliday in the cyberspace between Australia and Scotland. I thank my parents for their continued support and belief in me. Special thanks to my husband Ulf who provided unwavering support at home so that I could explore my own learning possibilities.

I dedicate this thesis to two business mentors whose wisdom and generous counsel greatly influenced my relational understandings of work and learning: John and in memoriam to Michael who died in the tragedy of 9/11.

Partial List of Publications

The following list represents my published journal articles and refereed conference papers that received academic awards and prizes. Some of these publications are referenced throughout this thesis document to support my points on the conceptualisations of collective learning from my investigation. A complete list of publications generated during my doctoral candidature is included in Appendix 5.

Journal Articles

Hager, P. & Johnsson, M.C. (2008). Working outside the comfort of competence in a corrections centre. *Australasian Journal of Correctional Staff Development* 3(3). 11 pages.

Hager, P. & Johnsson, M.C. (2009). Learning to become a professional orchestral musician: Going beyond skill and technique. *Journal of Vocational Education and Training* 61(2): 103-118.

Hager, P. & Johnsson, M.C. (2009). Working outside the comfort of competence in a corrections centre: Toward collective competence. *Human Resource Development International* 12(5): 493-509.

Halliday, J.S. & Johnsson, M.C. A MacIntyrian perspective on organizational learning. *Management Learning*. Prepublished 13 November, 2009. DOI: 10.1177/1350507609347589.

Johnsson, M.C. & Hager, P. (2008). Navigating the wilderness of becoming professional. *Journal of Workplace Learning* 20(7/8): 526-536.

Refereed Conference Papers Receiving Awards and Prizes

Hager, P. & Johnsson, M.C. (2008). Working outside the comfort of competence in a corrections centre. *Proceedings of the 9th International Conference on Human Resource Development Research and Practice Across Europe*, 21-23 May, Lille Catholic University, Lille, France. ISBN 2-9516606-9-3. Winner of the Alan Moon Memorial Prize for best conference paper.

Johnsson, M.C. & Hager, P. (2007). Navigating the wilderness of becoming professional. *Proceedings of the 5th International Conference on Researching Work and Learning: Researching work and learning: Rethinking the centre, rethinking the margins*, 2-5 December, The Universities of the Western Cape and Cape Town, Cape Town, South Africa. ISBN 978-1-86808-658-0. Received Runner-up Best Paper Award.

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Abstract

Work in organisations is a shared and joint endeavour often accomplished by groups, teams or other collectives. Yet groups at work do not always learn at work, limiting an organisation's capability to thrive in knowledge economies. Research investigating collective learning at work continues to place the analytic focus on entities or abstractions representing the collective. For example, culture, power, group membership, group structure, group communications, motivations and skills are often examined to explain why groups learn or not in organisations.

In contrast, this thesis investigates what it means to learn together when people act, talk and judge at work through their relational and responsive interactions. This relational orientation conceptualises learning as emerging from patterns of interactions that are responsive to local contexts and shaped by practical sensemaking that occurs in the everyday practice of work life.

Specifically in the case study interpretive tradition, I investigate the relational practices of dyads and small groups in three disparate organisational contexts and professions. The organisational, group and individual characteristics differ widely for musicians in an orchestra, apprentice chefs in a commercial kitchen and rehabilitation staff in a corrections centre. Yet these three groups shared relational similarities in learning how to weave ways of acting, talking and judging together to make their work 'work'. Such weaving together is enabled by shifting conceptually from notions of context as descriptive setting or situatedness to the notion of groups contextualising together.

This thesis contributes to collective learning research by highlighting the significance of patterns of interactions and the dynamics of practice. The findings enhance existing collective learning theory by including spatio-temporal concepts from theories of organisational change and complexity. The findings have implications for guiding the learning of commencing practitioners into professions as well as for generating modes of transdisciplinary learning across professions. Re-viewing collective learning in relational ways recognises that learning is an emergent phenomenon, each time practised anew from interactions between people and the possibilities that lie within.

The Latin prefix *con* means *with*. It seems appropriate that *con*certs performed by musicians, *con*diments added to dishes by chefs and the *con*sequences of behaviours by corrections staff across diverse *con*texts of work can provide practical insights for better understanding how groups learn collectively at work.

Chapter One
Introduction: Re-viewing the Collective in Workplace Learning

'In this era of triumphant individualism and heralding of the free market, the rediscovery of the inherently social nature of modern economies goes against the grain' (Sayer & Walker 1992: 1).

'In our highly individualistic age, people have become ashamed of needing others' (Josselson 1996: ix).

Purpose and flow of this chapter

This introductory chapter sets the context for my thesis. Context plays an integral and integrative role in conceptualising the view – an alternative relational re-view – of collective learning at work that is the focus of this investigation. The purpose of this chapter is first to introduce the central concerns of my thesis and explain how the thesis emerged from within my participation on an existing research project. I then identify my research questions and the research sites that formed the basis of empirical work for the investigation. Finally, I conclude with highlighting the core relational terminology that will recur throughout the thesis and explain the organisation of chapters.

1.1 Introducing the central concerns of this thesis for researching practice

This investigation examines what it means to learn together when people act, talk and judge in related ways at work. My argument is that collective learning is a shared, interpretive and practical sensemaking process that involves actors dynamically contextualising the patterns of interactions around them in committed, relational and responsive ways.

My interest in this topic has grown out of my twenty years of experience as a manager, practitioner and organisational change consultant in the business world. Although business organisations utilise material resources – money, technologies,

infrastructure and manufactured resources – my professional work orientation has focused on mobilising groups of human resources in change-seeking ways. Demonstrating change through human endeavours can be realised in many personal, collective and organisational ways. Drawing from my workplace experience, I have seen how people's learning potential is not always realised; people can be creative, resistant, idiosyncratic and unpredictable about the occasions where they learn or not, with subsequent consequences for personal and organisational interests. As a manager leading groups of employees and a change consultant mobilising teams within organisations, I could generalise to no single reason why some groups learned in transformative ways and others did not.

As humans, we are and need to be social beings. Most of us grow up in families in neighbourhood communities; we meet new acquaintances, they become friends, partners and colleagues. At work, we perform tasks and jobs in concert with others; often we work in groups, teams, departments, taskforces and projects. How we produce work is shaped by how we relate to others, what we expect of them, what they expect of us, how we coordinate our efforts and what we perform together. Organisations rely on the coordinated and joint efforts of groups to achieve organisational outcomes and on individual and group ability to learn to succeed over time. In business, such expectations are idiosyncratically realised and may be unrealistic, yet represent an ongoing organisational aspiration.

In searching for explanatory power from theory, I believe theories of collective learning at work remain oriented analytically on entities rather than the relations that are continually being (re)produced through interactions. This study aims to adopt a relational responsive orientation and analyse patterns of interactions as the unit of analysis. Theories of collective learning appear to suffer from a 'double whammy', arising from challenges to the two components in its label – debate about what *learning* is and debate about how *collective* is understood.

Conventional binaries in the philosophy and learning literatures argue for what something *is* and therefore *is not*. For example, the Cartesian dualism of body-

mind, self-world or means-ends has been challenged by, for example, Dewey (Dewey 1916/1966; 1925/1958; Dewey & Bentley 1949), Ryle (1949/1963) and Bourdieu (1977) and more recently, other philosophers, psychologists and sociologists (Hager 2005a; Hosking et al. 1995; Toulmin 1999). Yet *learning* at work is still mostly understood as knowledge held in the mind that can be transferred (and trained) from one context to another (Eraut 2004a; Kontoghiorghes 2002). Furthermore, *collective* is problematically understood as another binary contrasting individual-social or individual-organisation (Fenwick 2008; Hodkinson et al. 2008; Hosking & McNamee 2006). Such assumptions often lead to views of organisational learning as accumulations of individuals who learn (Casey 2005; Kim 1993; Pedler et al. 1989).

In contrast, my research uses qualitative case studies (Merriam 1998; Silverman 2004; Stake 1995) of three organisations to investigate the practice of collective learning at work. I focus on how learning works between and among people: what they *do* when they interact together, what they *say* and understand as learning, and how they *judge* what is important in order to make inferences and commitments for current and future actions. I do not investigate what people know and how they transfer that knowledge from one individual to another in a general and abstracted sense, so that a 'best practice' approach for collective learning might be prescribed (as suggested by Dixon 1999; or Schwandt & Marquardt 1999). Rather, I adopt a contextual processual approach that regards context, the situational frame, as both *anchoring* understandings and *actively shaping* understandings of learning as a dynamic and emergent phenomenon.

Collective learning understood from this local perspective recognises that practical understandings emerge from the interactions and relations that are formed in response to cues by actors and situational factors. Such relations create situations that are continually revisable, yet still demand 'here and now' attention and resolution through committed action and engagement. Hence learning is better characterised as a developmental process, ordered by the temporality of changing patterns of interactions, requiring actors to make continual shared sense of their

everyday collective situation. Theoretical understandings of collective learning as embodied experiential phenomena are thus enhanced by the inclusion of concepts that theorise change in terms of temporal shapes (Cunliffe 2008; Shotter & Tsoukas 2007; Tsoukas & Chia 2002; Weick & Quinn 1999; Weick et al. 2005) and complexity in terms of emergence and improvisation (Davis & Sumara 2006; Shaw & Stacey 2006; Stacey & Griffin 2005; Weick 1998).

The trigger for adopting a relational analytical focus to collective learning emerged from my research work on a three-year Discovery grant project funded by the Australian Research Council, described as the Informal Learning project. The purpose of this project and how my thesis emerged, yet was distinct, from the project is described next.

1.2   Introducing my thesis from within the Informal Learning project

Recent interest in workplace learning theory and practice has been oriented towards its informal manifestations (Eraut 2004b; Marsick & Watkins 1990; Rainbird et al. 2004), leading to researcher discussions about the factors influencing *everyday* learning (Solomon et al. 2006), rather than *formal* or *structured* forms of learning. Beckett and Hager (2002) propose that informal workplace learning can be conceptualised as a growing capacity to make practical judgements that are context-sensitive and holistic (Beckett 1996; Beckett & Hager 2002; Hager 2000). Hager and Halliday (2002) also refined their views of judgements to being nested within practices that feature a tradition of maintaining internal and external goods.

Internal goods and external goods are concepts originally developed by MacIntyre (1984, 1999) as part of a broader theory on virtuous conduct and the teleological benefits of the narrative unity of life. Internal goods are goods obtained through participation in practice and that uphold the standards of excellence that partly constitute the practice. External goods are goods such as security, wealth and power that can be obtained through ways other than participation in practice, and

are only contingently attached to practice. Practice under MacIntyre's definition encompasses occupations and professions, for example nursing, but also other activities, such as playing chess (MacIntyre 1984).

The purpose of the Informal Learning project was to empirically test theoretical MacIntyrian concepts of goods of practice through qualitative case studies of informal workplace learning in Australian workplaces. The principal research objective was to test whether judgements made within practices that featured internal goods enhanced productive learning. Thus the primary orientation was on judgements made by individuals located in organisational contexts with the analytic focus on exploring the nature of internal goods of practice and their relationship to external goods from among the practices detected within each organisational context.

My participation as a researcher on the Informal Learning project has influenced the direction and design of my thesis in three ways. First as I commenced fieldwork, I was struck by how individuals acted in concert together although individual actions and talk could be differentiated. Each group was different in terms of size, composition, roles, membership and organisational location, yet similarities existed in the ways groups determined how to proceed productively forward. Second, not only were individual judgements critical to actions, but the talk in groups shaped the judgements made, actions inferred and actions taken. Third, as I interacted with my research participants, I became aware that I was co-constructing a form of participation with them. Although I was not a participant *in* their professional practice, I was relating in responsive ways as modes of trying to understand their practice. I was co-constructing a lived experience story (through a written research findings report about learning created for each organisation) but it was also simultaneously a story of my learning *with* them as well as *about* them.

Thus the research sites that formed the foundation for investigating judgements at work for productive learning also became my research sites for examining the relational character of collective learning. Of the eight empirical case studies

delivered for the Informal Learning project, two were produced from extensive analysis of public inquiry documents. They therefore did not permit analysis of interpersonal or multipersonal interactions.

Within the remaining six case studies, I sought organisational contexts where the collective was centrally integral to the work to be performed. I looked for instances where activity was interdependent, coordinated or jointly performed among several actors. I was less concerned about similarities in organisational features, group properties or practitioner competencies as entitative characteristics. In fact, I was more interested in detecting potential interactional similarities across organisations that exhibited diverse differences in their entitative characteristics.

The groups I selected as my research sites are:

- Developing musicians and their professional musician mentors at work in a symphony orchestra organisation.

- Apprentice chefs with professional chefs at work in a commercial kitchen organisation.

- An interprofessional care team working to rehabilitate drug offenders in a corrections centre organisation.

Within the three case organisations that were rejected, one was a small business comprising only four individuals; I felt that examination of the collective phenomenon would be analytically poor, becoming more reliant on individual practitioner characteristics. The other two were multi-organisational networks or partnerships that exhibited cross-organisation cultural complexity. While I believe analysis of these sites could have been fruitful, their added level of complexity suggested that they could be considered a source of future research to extend the foundational findings from this thesis.

More detail about my research sites is provided in Section 1.4 after I discuss the research questions that guided my investigation. In this chapter so far, I have

introduced the central concerns of my thesis for researching collective learning and I have now explained how my involvement in the Informal Learning project provided a research platform for my investigation on collective learning. Next I identify the research questions that guided the investigation.

1.3   Introducing my research questions

From the work I performed on the Informal Learning project, I observed that acting, talking and judging were all significant ways that individuals use to interact and communicate with each other. Furthermore as Beckett, Hager and Halliday conceptualise (Beckett & Hager 2002; Hager 2005b; Halliday & Hager 2002), the context – as illustrated by the shared situation, the organisational roles and relationships, the significance of issues at hand – seems to be critical to the development of a shared understanding among participants in the groups I observed. Therefore, I designed my investigation to probe and analyse *how* relational ways of acting, talking and judging contribute to learning and *why* they condition the emergence of learning in patterned ways through the experience of work.

My research questions for this investigation were:

- How do groups relationally construct their shared understandings of learning through acting, talking and judging?

- How and why do groups contextualise to integrate acting, talking and judging into patterned ways of collective learning?

- How do relational practices condition the emergence of collective learning in groups at work?

I believe that relational acting, talking and judging 'strands' can be foregrounded in analysis to understand what phenomenon is occurring that is contributing to shared sensemaking among actors. I am also interested in what patterns of relational interactions occur when all three strands come together when actors collectively experience their local contextual situations together. In language,

using the present continuous form of the verb 'contextualise' plus its present participle '-ing' to form 'contextualising' connotes a form of *verbing* (Dervin & Foreman-Wernet 2003) or 'doing-action' (Carr & Kemmis 1986: 32-33) that better captures the ongoing multipersonal adapting that occurs through the practical actions of daily organisational life.

These research questions guided my interactions with research participants at the research sites. I next describe the research sites and organisations that formed the empirical data for my investigation.

1.4 Introducing my research sites

My research sites are all Australian organisations located within metropolitan or regional areas within one state in Australia. This section provides brief organisational overviews. More detail on these organisations is provided in Appendix 1.

SymCo– A symphony orchestra

SymCo is a state symphony orchestra located in a metropolitan city of Australia. Originally, all state orchestras were part of the Australian Broadcasting Corporation (ABC), a not-for-profit company funded and subsidised by the Australian federal government. From 1996 onwards, the state orchestras gradually devolved into separate legal entities (and ABC subsidiaries) and adopted a more commercial orientation. From January 2007, a few months after the case study was completed, SymCo and the other state orchestras fully divested from the ABC and now exist as independent companies responsible for their business strategy execution and accountable to independent Boards of Directors. At the time of divestiture, the source of governmental funding for SymCo represented less than fifty percent of its annual revenues.

SymCo is an organisation of over one hundred and thirty individuals while the professional orchestra comprises under one hundred musicians on permanent full-time salaries or part-time contracts. Casual contract musicians are also hired, as

need arises, to fill positions for certain concert repertoires or given periodic resource shortages. As with most symphony orchestras, the orchestra is led by a conductor (artistic director is also a common second title) and is structured into sections comprising strings, woodwind, brass, percussion and other (e.g. piano or harp as required). Supporting the musicians are various organisational functions typically called orchestral management (e.g. stage support for concerts), artistic operations (e.g. development processes for musicians), commercial operations (e.g. box office), external relations (e.g. fundraising) and business support (e.g. finance, payroll).

In 1995, the artistic director in charge of the education program at SymCo was faced with a resourcing dilemma. Members of the professional orchestra were likely to be absent through new international touring commitments and were therefore not available to perform school tours and concerts within the state. The director envisioned the concept of a new orchestra to be staffed with developing musicians (students still pursuing music studies) requiring fewer professional musicians, thus enabling an instrumental goal to resource the school tours to be achieved. Simultaneously but more importantly to fulfil the director's educational vision for musician mentoring, developing musicians could participate in a development program that would expose them to working alongside professional musicians as colleagues and mentors, in order to experience the professional vocation to which they aspired.

This development program is named DEV1 in my investigation. A second later program, DEV2, evolved out of the original program and targeted new graduate musicians providing a one-year dedicated fellowship. The DEV2 program exposed musicians to more intensive activities such as chamber music ensemble playing, masterclasses with visiting soloists and conductors and other professional development activities. The focus of my empirical work at SymCo was limited to interactions between and among various combinations of developing and professional musicians participating in the DEV1 and DEV2 programs, although other interviews were conducted with non-musician staff to frame the

organisational history and to understand the cultural setting within which musicians performed and worked.

KitchCo – A commercial kitchen

KitchCo is a privately-owned organisation that provides a full range of commercial catering services to several institutional clients. The company obtains multi-year contracts to run various commercial kitchen operations including cafés, fine dining restaurants and convention, function and bulk production kitchen sites. KitchCo is also a host employer organisation. In the Australian workplace, this means they have a business relationship with one or several group training organisations (GTOs) that oversee the training and placement of apprentices for the hospitality industry, including the segment of commercial cookery.

In its accountability as a host employer organisation, KitchCo agrees to take on commercial cookery apprentices at all levels (years one through four) and train them in the vocation of commercial cookery as part of a negotiated work placement that can typically last between six months to one year. The legal and administrative employer responsibility for the apprentice remains with the designated GTO. However, most apprentices would regard their immediate supervisor at the host organisation to be their manager. This manager sets apprentice work schedules, provides daily feedback and performs apprentice performance assessments during and at the end of the work placement.

The GTO pays the apprentice a contracted apprentice wage (starting about $7 per hour before loadings) set by state government legislation and recovers a separate amount for the cost of apprentice work from the host employer. GTO organisations must provide periodic reporting on apprentice statistics to the federal government and the state governments in which it has operating licenses. In Australia, there are approximately five hundred vocational occupations covered by about one hundred and fifty GTOs (Group Training Australia 2006).

The two research sites for this case study included 1) a fine dining restaurant, and 2) a function centre and café, where apprentice chefs worked alongside commercial kitchen staff (professional chefs, kitchen operations staff such as dishwashers and wait staff) to deliver food service. The term KitchCo has been used to designate the two host organisations where I observed apprentices and experienced chefs working together. Apprentices at both locations were employed by the same GTO.

CorrCo – A corrections centre

CorrCo is a corrections centre that is implementing a new model for rehabilitating drug offenders. The endeavour is a pilot implementation that requires the coordinated efforts of state government corrective services, justice and health authorities. At the time of the case study, the pilot had passed its first year anniversary of operations with most of the staff I interviewed having been part of that full year of operation. The centre has the capacity for up to eighty male drug offenders; at the time of the case study, staff at the centre were treating over thirty drug offenders.

The centre comprises approximately fifty employees on permanent salaries and fixed-term employment contracts and managed by a director who has professional qualifications as a psychologist. Employees at the centre represent a combination of various healthcare professions including:

- Alcohol and drug counsellors
- Custodial officers
- Education officers
- Medical doctors and nurses
- Probation and parole officers
- Psychiatrists, and
- Psychologists.

The basis for the drug treatment model at the centre is a holistic reorientation towards pro-social behaviours with the offender taking personal accountability for living and documenting a customised 'good life' (Ward & Brown 2004).

Treatment is based on a therapeutic jurisprudence model (Wexler & Winick 1991) where, although both rewards and sanctions are used, rewards are intended to outnumber sanctions. The director's vision for the rehabilitation of drug offenders encompasses a notion of system-wide organisational change, including the offenders' interactions with each other, their interactions with rehabilitation staff and staff interactions. Therefore, interdisciplinary ways of working together to achieve the centre's rehabilitation objectives are strongly encouraged by the director. My ethics approval for the research site did not include approval to interview the offender population; instead I focused on researching the interactions among various staff members as they acted, talked and judged with others in the performance of their work.

I have introduced my research questions and provided initial descriptions of the research sites. I now introduce the way I use relational terminology before concluding this chapter with the organisation of this thesis.

1.5 Introducing relational terminology and how core terms are used

As Gergen has observed 'at present we possess a staggering vocabulary for characterizing individual selves but stand virtually mute in the discourse of relatedness' (Gergen, cited in Silverstein et al. 2006: 391). I believe an implication of Gergen's observation is that because we do not have good linguistic tools in this 'relatedness' area, out of necessity, we must stretch our available tools to fit. In language, we use linguistic terms that have overlapping and conflicting meanings (Ricoeur 2004). When groups work together, participants develop individual and collective understandings of their situation, parsing through differing, sometimes conflicting interpretive frames that must be negotiated (Goffman 1974). Yet in everyday organisational life, groups and individuals deliver productive work and outcomes. In this section, I highlight core concepts and the key terms that I will continue to use throughout this thesis.

The first core concept is that of *collective*. I regard collective as the category descriptor that encompasses group, team, taskforce, project or other aggregates. I prefer collective learning to group learning or team learning because 'collective' merely names the phenomenon without adopting an evaluative connotation (e.g. when is a group a team?). When I refer to the entity under study, I use *group*, for example 'How groups relate by talking together' is a findings chapter, Chapter Five, in this investigation. Using the alternative term, 'collective' as a noun evokes images (e.g. communes) that are not relevant to my study, nor commonly used for discussions of workplace learning.

The second core concept is highlighted by the variation in meanings of the words 'relate, relational, relationality, relatedness and relationship'. They all sound similar but have slightly different meanings. I mostly use *relational* when describing the character of activities, processes or phenomena where there are back and forth connections, inter-dependencies or a sense of mutual constitution that are the foci of my study. I use *relationality* occasionally when I need a name for this phenomenon. I limit the use of *relationship* because of its professional use in psychology (Terry & Hogg 1996) or its technical use in marketing (Grönöos 1996; Harker 1999) although relationship is also used as a generic term for connections between two constructs (Moorman et al. 1992) or the level of trust that needs to be developed between two entities (Benasaou 1999).

The third core concept is *interaction* and its various forms: *interacting*, *interactional* or *interactivity*. I regard interacting as the visible manifestation of relational activities where there are reciprocal and responsive effects. I do not treat interacting and interaction literally as only encompassing physical actions of the human body. I regard interaction as encompassing the use of physical bodily movement, non-verbal gestures and verbal talk. I do not analyse interaction in talk technically by applying micro-interaction analytic methods as covered by the domain of Conversation Analysis (CA) (Drew & Heritage 1992a; Ochs et al. 1996; Sacks et al. 1974). In CA, the context that matters is embedded *only* inside the micro-interactions of the talk. In contrast, I am interested in how talk-based

interactions provide contextualisation cues (Gumperz 1972) and broader signals that construct the social discourses groups use to proceed forward (Sarangi & Coulthard 2000; Sarangi & Roberts 1999). Thus I position context(ualising) as more global in doing the integrative work – context includes talk but is not exclusive to talk. In this respect, my interactional analysis of talk aligns more with the field of interactional sociolinguistics (IS). Originating from the work of Goffman (1974; 1981) and Gumperz (1972; 1982; 1992), IS draws from CA but shifts the focus from the micro-interactions in talk to 'goal-oriented interpretive processes' (Gumperz 1992: 306) or interpretive frames (Goffman 1974) that underlie the production of talk. More detail on IS analysis is covered in Chapter Three on research methodology. My findings on how groups relate by talking together is covered in Chapter Five.

The fourth and final core concept is the term *practice*. This term is used commonly as a counterpoint to theory or as application of theory (Bratton & Gold 2007) or embracing the scope of a discipline or profession (Johnson 2000). In the Informal Learning project, I used a MacIntyrian definition of practice (MacIntyre 1984). Within this investigation, I align myself with the 'practice turn' in organisational studies (Nicolini et al. 2003; Schatzki et al. 2001). This view of practice suggests that acting, knowing and learning are 'forms of social and cultural phenomena … that are relational, mediated by artefacts, and always rooted in a context of interaction … always in the making' (Nicolini et al. 2003: 3, 22). Here the characteristics of *participation* and *process* reflect the heritage of Lave and Wenger's situated theories (Chaiklin & Lave 1993; Lave & Wenger 1991; Wenger 1998, 2000) and Vygotsky's activity theories (Engeström 2001a; Engeström et al. 1999; Vygotsky 1978) with *provisionality* introducing a dynamic dimension to time. I explain this orientation in more detail when positioning my study within the domains of learning literature in Chapter Two.

Consistent with my perspective that relational practices are emergent and interacting phenomena, I prefer to use the core concepts in their present continuous forms, such as interac*ting*, talk*ing*, judg*ing* and act*ing*. Dervin in her

communications research investigating sensemaking for information and library sciences contexts, has coined the term *verbing* to connote the provisionality and the co-constructed nature of communications by people (Dervin 1999; Dervin & Foreman-Wernet 2003). She argues against conventional models in communications research that abstract to unvarying entities: 'sender', 'receiver', 'message and 'transmission' (Dervin & Foreman-Wernet 2003). In education, conventional understandings of analogous entities such as 'teacher', 'learner', 'knowledge' and 'transfer' have been similarly challenged (Hager 2004; Solomon et al. 2006).

In this section, I have covered how I use core relational concepts and terminology. I now conclude this introductory chapter with specifying how I organise this thesis.

1.6   Organisation of this thesis

In this chapter, *Chapter One*, I have explained the rationale for my professional and researcher interest in investigating a relational re-view of collective learning. I have described how the focus of my thesis emerged from my researcher role on the Informal Learning project and how that focus shaped the construction of my research questions, the selection of my research sites and the terminology I use to describe the core concepts that contribute to collective learning.

Chapter Two discusses how I categorise the collective learning literature into three domains and how I argue for my positioning and alignment within Domain 3. Each domain uses different assumptions about the appropriate analytic lens. Domain 1 literature interrogates collective learning through the lens of grouping multiple individuals who learn, or through examining the structure and properties of engineered entities called groups. In both cases, the unit of analysis is on the entity and the primacy of the entity in providing the conceptual engine for analysis. Domain 2 literature views activities and processes as appropriate analytic devices, so that teamwork and processes of group learning become focal points

that are interrogated against the coherence of the system of interest, i.e. the organisation's interests or the institutional activity system. Domain 3 literature, the view I support, argues for collective learning as changing patterns of relational responsive interactions where actors constantly switch between local and global interpretive frames to form shared understandings that lead to commitments to action and engagement.

Chapter Three describes the qualitative methodological tradition and the research methods that I employed to investigate how participants understand their ways of working through acting, talking and judging together. I discuss the value of combining the planned research methods of case analysis and interactional sociolinguistics with emergent forms of participatory action research and co-operative inquiry in generating my research findings.

My findings from this investigation are covered in four chapters. The initial three chapters shift the analytic focus to each relational strand: acting, talking and judging. *Chapter Four* analyses how groups relate through acting. I discuss relational acting through two illustrations: 1) developing and professional musicians performing in rehearsal and concert, and 2) apprentice and professional chefs acting together to deliver à la carte lunch service. *Chapter Five* analyses how groups relate through talking. I discuss relational talking through two illustrations: 1) How orchestral musicians talk about becoming professional, and 2) How programs staff talk about helping drug offenders. *Chapter Six* analyses how groups relate through judging, by interdependent forms of commitment and engagement. I discuss relational judging through two illustrations: 1) How programs staff judge motivations for future anticipated actions, and 2) How chefs judge pragmatic quality 'in the moment' of crisis.

The fourth findings chapter, *Chapter Seven*, integrates the previous three chapters. It recognises the integrative role that context and the activity of contextualising has in conditioning collective learning. Drawing upon comparisons across all three case organisations, I discuss the importance of contextual cues in gesturing

and guiding the judgements and talk of groups in action and the implications for how groups learn through interpreting situational contexts that become patterned forms of interaction.

The final chapter, *Chapter Eight*, summarises my thesis argument in terms of my research questions. I identify the implications of my collective learning investigation for commencing practitioners (such as developing musicians or apprentice chefs) encountering *transitions to work*. I identify the implications of my study for existing practitioners (such as the interprofessional care team) already *performing at work*. I highlight my contributions in terms of the theoretical, methodological and practical benefits of adopting a relational orientation to collective learning at work. I conclude with identifying further research that could extend these contributions to highlight additional ways to re-view collective learning in relational responsive ways.

Chapter Two
Re-viewing How Groups Learn: A Critical Review of Literature

Purpose and flow of this chapter

Researching learning at work is a little like the Chinese folk tale (Kuo & Kuo 1976: 7) about the three blind men and the elephant: what learning means depends on your assumptions and perspective of experiencing it.

For example, as one blind man [sic], if you touch only certain parts of the elephant: its legs, tail or trunk, you build an individual worldview of the phenomenon guided by the physical characteristics of the elephant's parts (meaning one: an objective partial view of reality). Alternatively, if you can debate what this phenomenon is after experiencing its parts as a member of a three person group, you have the shared opportunity to better understand the entire phenomenon: the elephant as a mammal, its habitats and variations in its biological order, family and species. Understanding that an elephant means more than the sum of its physical parts can therefore lead to possible changes in individual worldviews (meaning two: a coherent system view of reality). But if you as one of three participants share an experience of interacting together with the elephant(s) through close encounters (such as on an elephant trek where some significant event, crisis or enjoyable connections occur), 'the experience' and 'the phenomenon' are redefined in a way that forever changes how you regard elephants or your co-experiencers going forward (meaning three: an experiential relational view of reality). Each of these three situations frames different conversations, inferences and actions that guide the meaning of how it is to move forward together.

And so it is, I believe, with the field of learning-at-work literature and specifically with the phenomenon of *collective learning*. Various philosophical orientations and assumptions have governed the units of analysis (what is foregrounded), the

assumptions about change, specifically the role of time and space in learning (what influences are relevant) and the value of learning to work in society (means-ends implications). The primary purpose of this chapter, Chapter Two, is to critically review the research literature on how groups learn and to argue for the benefits of re-viewing the phenomenon of collective learning using a more relational and complex (i.e. exhibiting complexity theory characteristics) orientation.

I review learning research literature through the vehicle of an organising framework which I have developed, that categorises literature into three domains: Domain 1, Domain 2 and Domain 3. Each subsequent domain builds upon aspects of the prior domain yet challenges certain assumptions and shifts what is foregrounded and therefore of analytic relevance. I call Domain 1 the entity-resource view, Domain 2 the activity-system view and Domain 3 the ecological-relational view.

After introducing the organising framework and its justification in Section 2.1, I discuss each domain in separate sections – Sections 2.2, 2.3 and 2.4. Within each section, I first identify the philosophical traditions that underpin the domain's perspective and characterise what is being theorised. Then I discuss exemplars of research in that domain to highlight the research and practice implications for understanding how groups learn. Finally, I conclude my review of each domain's contributions by identifying its benefits and limitations for the theory and practice of collective learning. I locate my investigation as illustrative of a Domain 3 view of collective learning: learning that is constructed from patterns of complex responsive relating.

A secondary purpose of this chapter is also to discuss and observe what often has been debated as the 'uneasy' relationship that theory has with practice in general and within professional contexts (Buchanan 1994; Carr & Kemmis 2005; Lawler et al. 1985; Shotter & Tsoukas 2007; Tomlinson 2004). I do this because the issues explored in this investigation also surface how relations of difference and

considering 'the other' can be used to productively re-view the world we experience. For example, while research is conventionally performed by those in academia and practice is conventionally performed by those in industry, academia is also a workplace where practice is performed and industry is also a space for researching and theorising. The boundaries that we apply to live our lives can be considered from one perspective to be arbitrary, but they are also needed to distinguish the phenomenon of interest. Collaborative action learned from *inside* experience is facilitated by understandings of difference and diversity – of participants, of situations and of perspectives. It opens up 'horizons of possibilities', ones that are open-ended in the full sense of Heidegger's *Dasein* (Dallmayr 2002: 474).

For example, although this chapter is presented chronologically before my findings chapters in the organisation of this thesis document and early reviews of theoretical literature usefully pre-dated and framed my empirical approach, I observe that this chapter in its 'finished' form re-emerged from my experience of 'doing' my empirical analysis. Weick (1995; 2001) argues that we only make sense of something retrospectively *after* the fact. Yet to restate Mead (1932/1959), we live our past and our anticipated futures only from positions in the present. This emergent and simultaneous character of life and learning suggests that rather than theory *explaining* practice in some kind of linear and logical way, people constantly obtain coherence in everyday life from 'inside … the circumstance' (Shotter & Tsoukas 2007: 21) in responsive relation with others. This coherence-making 'unfolds in time [and] is *dramaturgical* in character' (Kemmis 2004: 403, original italics). It unfolds metaphorically like a dance (Rowe 2008), illustrating aspects that are recognisable as a dance form (Wittgenstein's 'family resemblances', cited in Shotter & Tsoukas 2007: 19), yet in its detail, unpredictable and occasionally unnoticed in its actualisation in performance or the impact of connections made between performer and audience.

In this sense, learning and its underpinning theory and practice is more creative, poietic and generative than deficit views of learning allow (Billett 2006; Boud &

Solomon 2003). In Section 2.5, I discuss the initial implications of this mode of generative learning as a way of summarising where I believe the direction of collective learning literature is moving. A more substantive discussion of these implications is provided in the conclusions and implications of my investigation in Chapter Eight. Finally in Section 2.6, I conclude this review of literature by identifying how the themes discussed in this chapter helped to lead to the methodological choices I made that are discussed in the chapter that follows, Chapter Three.

2.1 Group learning literature: An organising framework

In this section, I elaborate on my organising framework (Figure 1 on the next page) as a guide to discuss how group learning research literature is positioned and where the theoretical basis of my investigation is aligned. In this framework comprising three research domains, I first explain the differing assumptions underlying researcher interest and therefore the rationale for categorising literatures under three separate yet related domains. I then discuss how various collective learning literatures are arrayed within the framework, the research issues typically explored by categories of literature within each domain and how they differ in explaining collective learning at work.

Figure 1 identifies three research literature domains: Domains 1, 2 and 3. Each domain features its own distinctive assumptions about what is relevant for collective learning: 1) the unit of analysis to foreground, 2) the influence of time or temporality, and 3) the meaning of space or spatiality and 4) its orientation and implications for theory and practice. The *unit of analysis* is a key point of differentiation among the three domains and the primary way in which existing literatures distinguish their traditions and positioning. In this framework with regard to the unit of analysis, I characterise Domain 1 literature as focusing on groups as entities or resources that perform work; Domain 2 as focusing on the coherence of group processes (linked sequences of activities) and contextual factors within bounded organising systems; and Domain 3 as focusing on patterns

generated from relational responses and interactions that are inherently collective – the focus of my investigation.

Figure 1
A categorisation of
collective learning research domains

Concept of 'space' as	**'In-betweenness' and difference**	**Domain 3: Ecological-relational** Unit of analysis: Patterns of relational responses Time: Indeterminate (influences learning in nonlinear ways) Analytic focus: Conditions of emergence and development Learning goal: Experientially committed in the present
	Situated Circumstances	**Domain 2: Activity-system** Unit of analysis: Activities within systems Time: Linear (progressive for learning) Analytic focus: Conditions of fit and development Learning goal: Optimal fit and coherence
	Descriptive Setting	**Domain 1: Entity-resource** Unit of analysis: Entities as resources Time: Static (neutral for learning) Analytic focus: Causal factors, barriers Learning goal: Prescription, best practice

The conceptual treatment of the role of *time* and *space* in learning has become of recent topical interest to researchers searching to better understand the relationship between learning and change in organisational studies (Clegg et al. 2005; Hager & Johnsson 2008; Shotter & Tsoukas 2007; Spreitzer et al. 2005; Stacey 2001; Tsoukas & Chia 2002). Domain 1 literature acknowledges the occurrence of *time* but assumes that time has no influence on the normative outcomes of learning, i.e. learning remains universally applicable over time. Domain 1 literature often aims to identify invariant causal links between antecedent conditions and learning outcomes (e.g. the effects of interpersonal trust on work group performance, as in Dirks 1999) with the broader objective to improve (i.e. prescribe) organisational performance of teams at work in general (Dixon 1999; Race 2000).

In Domain 2 and 3 literatures, time is treated dynamically as influencing learning; where Domain 2 and 3 differ is in their theorisation of time. In Domain 2 literature, time is a contextual element, it contributes to situated circumstances that shape particular and local learning processes, their conditions and their progression. A Domain 2 view of learning treats time as our conventional understanding of clock time: it can be measured, it structures events through before and after relations, it discusses progression. A Domain 3 view of learning understands time as dynamic but also indeterminate and continuous (Rosenthal 2000): it addresses the quality of time where past, present and future coincide, the significant moments of connections when everything 'just flows' in a collective effort.

I characterise the meaning of *space* in distinctive ways across the three domains. In Domain 1's entity-resource view, the meaning of space is literal and material – the site of learning, the setting for learning: the individual, the organisation, the office. It therefore locates learning in a specific place, e.g. mind of an individual, or embraces notions of transfer from place to place. When temporality is considered in Domain 2 through the sequencing of activities or processes, the meaning of space becomes situated and contingent: it may encompass physical space as in Domain 1 but now other contextual parameters become relevant, e.g. the configuration of human and material artefacts that influence groups at work, or the cultural-historical evolution of the organisation where and when group learning is being scrutinised. The largest conceptual shift occurs moving from Domain 2 to 3, where additional meanings of space, for example 'social space' (Bourdieu 1985, 1989) or 'lived space' (Soja 1996) encompass the metaphorical sense of encountering difference, i.e. dealing with the 'in-betweenness' that comes from a mode of learning that is emergent and improvised with others.

The Domain 3 metaphorical sense of space suggests an opening up of new possibilities that can be committed to among actors only in the present as lived experience (Heidegger 1927/1962; Mead 1932/1959) in contrast to fitting into the

assumed coherence of a system (such as the organisation where groups learn) in Domain 2. Such possibilities are not random or infinite, since actors are enabled and constrained by others and their circumstances in judging the scope of such possibilities. These possibilities may lead to learning that is potentially transformative while always remaining provisional and context-sensitive in the moment; learning implications go beyond the setting of any limits or institutional expectations for learning in a particular organisation.

These distinctive assumptions across the three domains shape the orientation and implications adopted by researchers when investigating collective learning theory and practice. In *Domain 1* literature, the dual character of entities (entity, non-entity) as resources enable entity attributes and properties to be examined and interrogated in terms of their relevance for learning. Here, 'active' entities such as individuals, groups, organisations (even organisational networks) can be considered to 'learn'. Thus this domain researches groups as identifiable entities and examines collective properties such as membership, composition, organising structure, size, skill base, experience base or other attributes. Group activities, group processes and group behaviour may be examined, but only as they help to make visible the characteristics of entities and their properties, e.g. the motivations of individual group members, or the cohesiveness of the group for a specific project purpose.

In this rational and normative orientation to Domain 1 learning, entities are examined at particular points in time (for example, the groups in place at the time of research) and space (particular locations in the workplace where groups are performing work). The nature of the resultant learning is often described as learning outcomes, team deliverables, team knowledge, or best practices, inferring an ability to 'de-contextualise' the experience of those specific members for future utilitarian use by 're-applying' or 'transferring' such benefits to other organisational contexts with different groups at future points in time. This collective learning view shares an epistemological similarity to perspectives that represent knowledge as objects that can transfer as 'products' between contexts

(e.g. Detterman & Sternberg 1993; Eraut 2004a; Holton III & Baldwin 2003; Tuomi-Gröhn & Engeström 2003). While the concept of entities is attractive in its analytic simplicity, it neglects the social, processual and experiential quality of learning while also ignoring the role of time in changing not only *what* is learned but also *how* it is learned.

Domain 2 literature assumes the existence of entities and other material instantiations of work, but shifts the unit of analysis to the activities performed by those entities and their relationship as part of an overall system that has coherence as a whole. Hence this literature acknowledges the progression of time so the focus may describe *what* work groups do and what outputs they lead to, but particularly focuses on *how* groups do work – group activities, dynamics of behaviour, interdependence and interrelationships – in socially-determined situated contexts where and when learning is occurring. The linkages between tasks and activities are often described in Domain 2 literature as *extra individual* processes that form the objects of interest (e.g. group communications processes, as in Frey et al. 1999).

Domain 2 learning literature encompasses literature that builds from sociohistorical practice-based theories of activity (Chaiklin & Lave 1993; Engeström 1999; 2001a; Engeström et al. 1999; Moll 1990) including community of practice theories and their extensions (Henriksson 2000; Lave & Wenger 1991; Smith 2005; Wenger 2000; Wenger et al. 2002). These literatures are underpinned by philosophies that depict life as constructed from social reality (Berger & Luckmann 1966; Mead 1934/1962; Schütz 1967) and that recognise the importance of interpretation and social construction. They also recognise how time structures the experience of shared participatory work activity that is productive in various ways for learning. In Domain 2, more sociological views of part-whole contributions of individuals to collectives/society (Bourdieu 1985; Bourdieu & Wacquant 1992; Gherardi & Nicolini 2001; Rocha 2003) also shape understandings of work and life as communal forms of learning activity.

The value of a Domain 2 perspective is that both product (entity) and process (activity) contributions are considered relative to how they work together to provide systemic coherence. No one component is reified over another; rather products/process and ends/means are mutually constitutive and intertwining as in a Deweyan world (Dewey 1925/1958; Dewey & Bentley 1949). Further, unlike the rationalist view of Domain 1 learning that assumes the benefits of causality (i.e. propositional knowledge can be effectively transferred to other contexts), Domain 2 learning is based on socially-shaped interpretive understandings of learning. Here, the assumptions of time as clock time and space as situated circumstances combine to describe learning as a developmental process of change that could be formative or transformative.

Yet the Domain 2 view of learning is still framed by the notion of a greater whole that has an instrumental or teleological rationale, such as the goals and interests of an organisation. Collective learning is influenced and 'afforded by' (e.g. Billett 2001a) economic, cultural and social interests and the institutional characteristics of what constitutes the system of interest. An implication is that boundaries (structural, process or functional) become sources of conflict or tension when considering the fit or alignment of learning to an activity system. Domain 2 researchers problematise the notion of boundary-crossing (Engeström et al. 1995; Tuomi-Gröhn & Engeström 2003) as a more nuanced way of transfer as a conceptual device to unpack these tensions.

I distinguish a *Domain 3* view of learning as encompassing individual entities and activities, but one that shifts the unit of analysis to interactions (including discursive interactions) and relations, the focus of this investigation. Here, the concept of living experience in the present draws from philosophical notions of dialogism as conceptualised by Bakhtin (1981; Holquist 1990) and emergence as discussed by Mead (1932/1959). Additionally, it draws on complexity theory principles of ecology, self-organisation and emergence as novelty (Gell-Mann 1994; Maturana & Varela 1987). In a Domain 3 view of learning, the boundedness that ties a Domain 2 view to particular time and space is metaphorically freed

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because the focus is no longer on understandings of coherent fit to a higher-order system, but only on the intersubjective relation (Schütz 1967, building upon Husserl's 'lifeworld' concept) of 'in-betweenness' and the collective learning value of encountering difference.

I suggest that the conceptual space claimed by Domain 3 literature is one now being actively created by researchers who bring enhanced spatio-temporal considerations in theories of action and change to the field of organisational studies (Bradbury & Lichtenstein 2000; Cunliffe 2008; Shotter 1999; Shotter & Tsoukas 2007; Tsoukas & Chia 2002), including those who apply principles of complex interactions to describe complex human phenomena (Davis & Sumara 2006; Maturana & Varela 1987; Russell & Ison 2004; Stacey & Griffin 2005; 2008a). The conceptual space that Domain 3 occupies is framed in varying degrees by terms such as 'knowing of a third kind' (Shotter 1993), 'the third logic' (Freidson 2001), 'hybridity' (Bhabha & Rutherford 1990), continually reconstructing experience as the 'third way' of organisational learning (Elkjaer 2004) and 'complex responsive processes of relating' (Stacey 2001; Stacey & Griffin 2005).

This ecological-relational perspective suggests the irreversibility of learning that is constantly being made intersubjectively and collectively with others in the present. Such perspectives have implications for the locus of collective learning that can simultaneously benefit individual, organisational interests and other interests. The topical relevance of relational practice that incorporates ecological and complexity principles to understand human work is evidenced by growth of researcher interest at various research forums (e.g. *10th International Conference on Human Resource Development Research and Practice across Europe* with its 2009 theme on 'HRD: Complexity and imperfection in practice'; the *4th 2008 Organization Studies Summer Workshop* on 'Embracing complexity: Advancing ecological understanding in organization studies'; the *1st International Symposium on Process Organization Studies* with its 2009 theme on 'Sensemaking and organizing'). Additionally, new publications on relational

accounts of human activity across various professional settings (e.g. Finlay & Evans 2009; Gergen 2009) suggest ongoing researcher interest in relational theory development for interprofessional collaboration as well as for professional applications.

I have now introduced and justified my organising framework for categorising existing group learning research literature into three domains. I start first with discussing Domain 1 literature in the next section.

2.2   The entity-resource view of learning: Groups as entities that learn

This section discusses the research literature that I categorise as Domain 1 in Figure 1 and that I characterise as representing an entity-resource view of learning. First, I review the philosophical assumptions that underpin how researchers theorise groups as either collections of individual objects that learn (approach 1), or objects whose properties can be 'manipulated' to learn (approach 2). I use exemplars within each approach to illustrate how empirical research investigations support these theorisations. Then I move onto commenting on what these conceptualisations imply for collective learning practice. Finally, I summarise the benefits and limitations of adopting an entity-resource view of group learning.

The philosophy that underpins the entity-resource view of group learning draws from a particular philosophy of science (e.g. Godfrey-Smith 2003; Kosso 1992; Ladyman 2002) suggesting that the physical and material properties of objects structure relationships and phenomena that can be causally and normatively analysed. This view claims an objective reality, where only the physical and material is real (Godfrey-Smith 2003). Human actors are autonomous individual objects endowed with physical material characteristics – a mind with brain and memory features that exhibit cognitive mechanisms and a corporeal body with behavioural possibilities. Actors operate within an external environment that has

various influencing effects on themselves as objects contained within their environment.

In objective views of the world, Cartesian principles of duality, as espoused by Descartes, Newton and Leibniz (see discussion of Cartesian rationalism by Olson 2003) are operative, emphasising the separateness of mind from body, thought from action and actor from environment (Garber 2001). The mind is represented as a non-physical substance separate from body; the mind's contents can be said to drive behaviour, contributing to a folk theory of mind or a metaphor of *mind as container* (Bereiter & Scardamalia 1996; Lakoff & Johnson 1980). The implication is that the mind contains products of knowledge that are learned through acquisition or transfer (Sfard 1998).

The nature of objecthood endows entities like actors with certain properties (e.g. physical height) and relations (e.g. length of legs to total height) but abstractions can also take on the material character of entities (e.g. knowledge, groups, organisations) that have some kind of taxonomic order (e.g. macroeconomic and microeconomic knowledge form part of economic knowledge, human groups comprise combinations of individuals). Domain 1 research literature typically examines collective learning in one of two ways: 1) a psychological approach by examining the learning of atomistic entities called individuals, and then aggregating the effects for 'collective' objects, for example, as contributing to group or organisational learning, or 2) an approach that foregrounds entities called groups whose structural or property characteristics can be 'manipulated' to lead to desired outcomes such as group performance.

Approach 1: Groups that learn as collections of individual objects that learn

Kim's (1993) article is prototypical of the first researcher approach that explains collective learning as the sum of individual learning useful for the collective object known as the organisation. In effect, 'group' means the combination of atomistic objects known as individuals. Kim's integrated model of organisational learning was influential at the time it was published because it pulled together

various prevailing models of organisational learning. For example, Kim's (1993) model showed how influential the research of Argyris and his colleagues (Argyris 1993; Argyris & Schön 1978; Argyris et al. 1985) was for practitioner understandings of organisational learning during the 1980s and early 1990s (Fiol & Lyles 1985; March 1991; Special Issue on Organizational Learning in *Organization Science* 1991). Argyris and Schön's (1978) work on individual mental models also influenced Senge's (1990) discussion of 'shared mental models' that gave rise to the popularity of *the learning organisation* during the 1990s (Chawla & Renesch 1995; Easterby-Smith et al. 1999; Lipschitz et al. 1996).

Kim's introduction to his paper highlighted the vocabulary of the then-prevailing entitative view that reified the characteristics of objects in learning at work:

> The purpose of this paper is to build a theory about the process through which *individual learning advances organizational learning*. To do this, we must address the role of individual learning and *memory*, differentiate between *levels* of learning, take into account different organizational *types*, and specify the *transfer* mechanism between individual and organizational learning (Kim 1993: 37, italics added).

Particularly telling for the purposes of this investigation, is the lack of central focus on groups as entities in their own right, deserving of research attention:

> Although such influences as the development and enforcement of group norms, group polarization, and other factors have an effect on individuals, group effects are not explicitly included in the model. However if we view a group as a *mini-organization* whose members contribute to the groups' shared mental models, then the model can represent group learning as well as organizational learning. A group can then be viewed as a *collective individual*, with its own set of mental models, that contributes to the organizational's shared mental models and learning. This is consistent with the notion that groups themselves are influenced by organizational structure and type of management style and, therefore can be treated as if they were *"extended individuals"*(Kim 1993: 43, italics added).

Here, Kim is inferring there may be a meso level of analysis, down from the macro level (group as 'mini-organization'), or alternatively viewed up from the micro level (group as 'extended individuals'). But such inferences nevertheless still imply (as he discusses in the remainder of the paper) that addressing individual learning has 'obvious' importance for organisational learning because 'all organizations are composed of individuals' (Kim 1993: 37). For Kim, the

primary entity remains the human actor, the individual as the employee of the organisation. The entity of relevance *extra individual* is the collective known as the organisation. Other entities are explained in terms of material object manifestations of abstractions, for example, organisational memory 'includes everything that is contained in an organization that is somehow retrievable' (Kim 1993: 43).

What matters for learning, according to Kim's model, is to better align individual mental models with organisational shared mental models. This is best addressed by causing (in Kim's terms, 'making explicit') the shared mental models in individuals' heads to fit with organisational mental models because '*individuals' heads are where the vast majority of an organization's knowledge (both know-how and know-why) lies*' (Kim 1993: 44, original italics). Kim's discussion of learning identifies several assumptions and implications for the nature of learning:

- Individuals and the knowledge inside their heads are resources that can be, and should be made beneficial for organisational re-use purposes.

- Knowledge can be de-contextualised and objectified so it can be transferred to other people or for other situations.

- Individual learning is the acquisition of knowledge and the creation of representative mental models of this knowledge inside individual heads; organisational learning is the cumulative effect of many individuals acquiring, aligning and transferring their mental models with others within the organisation.

- The lever for learning operates by directing the knowledge of individual entities towards the purposes of organised collectives of individuals known as organisations (Kim suggests two methods of alignment could be 1) the use of systems archetypes or mapping tools rather than relying on the ambiguity of the English language for communication, and 2) participation in learning labs for testing each other's mental models).

- Time, location and the circumstances of learning are independent (or in some ways, irrelevant): they do not affect the principles of knowledge transfer among individuals.

Kim's (1993) analysis of collective (organisational) learning is illustrative of approaches that seek to generalise psychological theories of individual learning to impute theories of learning by collective objects known as organisations. In

response to the challenges of the 'modern organisation' (Etzioni 1969), learning literature responded to the need for and value of structuring human activities and knowledge. This literature highlighted the importance of concepts such as motivation (Deci et al. 1991; Hackman & Oldham 1976; Kontoghiorghes 2002; Pool 2000), knowledge (Argyris 1993; Chisholm 1966; Forsythe & Buchanan 1989; Kogut & Zander 1992; Lesser 2000) and transfer (Detterman & Sternberg 1993; Eraut 2004a; Holton III & Baldwin 2003; McKeachie 1987; Royer 1979) as contributing to learning. They also contributed to the enthusiasm with which the concept of 'the learning organisation' was embraced by researchers and practitioners (Chawla & Renesch 1995; Garratt 1987; Lipschitz et al. 1996; Pedler et al. 1989; Senge 1990; Senge et al. 1994).

In parallel with this approach, largely as the result of recognising the dilemmas of structuring work and administrative behaviour (Aram 1976), a structural approach to collective learning also emerged, where researchers examined the properties of collective objects called groups. This approach is described next.

Approach 2: Groups possessing object properties that can be 'manipulated' to learn

In the second researcher approach within Domain 1, researchers who <u>did</u> select groups as their analytic focus, nevertheless reaffirmed a similar entitative perspective by analysing the structural properties and characteristics of groups as entities. Table 1 (on the next two pages) summarises some group properties that have been examined by researchers as contributing to group outcomes such as effectiveness or performance.

Table 1
Domain 1 literature examining
group properties as drivers of desired output

Group Property or Characteristic	Desired Group Outcome[1]	Work Context	Key research findings and exemplars[2]
Size, composition, demographic characteristics, structure e.g. small group, membership, team tenure, team diversity.	New product team performance.	45 new product teams in 5 high-technology organisations.	Functional diversity (e.g. different functions represented) improves communications outside the team and managerial ratings of innovation. Tenure diversity (e.g. range of experiences) improves priority-setting and goal setting. Negative effects may be counteracted by better negotiation and conflict resolution skills (Ancona & Caldwell 1992).
	Team performance.	Various teams from several industries.	The existence of formal hierarchy within the team, team and leader expertise and commitment to performance goals are important for team performance (Katzenbach & Smith 1993; 2001).
Task, e.g. task design, task variety, task autonomy, task interdependence or other group attributes, e.g. goal interdependence, reward interdependence.	Group performance.	150 Xerox service maintenance technicians.	Groups with clearly dependent or separate responsibilities and groups with distinctive group or individual rewards outperformed groups that had hybrid group tasks and rewards (Wageman 1995).
	Group performance.	Review of 7 experimental studies, including field studies of service engineers and telemarketers.	Group goal setting and pay for performance will have different effects on groups depending on their task interdependence and task complexity. A model that combines goal interdependence and reward interdependence as constructs that can be separately manipulated is hypothesised to improve group performance (van Vijfeijken et al. 2002).

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[1] Using the terminology used by the investigating researchers.

[2] Cohen and Bailey (1997) provided a comprehensive meta-review of group research on 54 teams in organisations that provide numerous additional examples by these and other similar group properties. Importantly, in their framework of team effectiveness, Cohen and Bailey reviewed other research studies across multiple group characteristics.

Table 1 (continued)
Domain 1 literature examining
group properties as drivers of desired output

Group Property or Characteristic	Desired Group Outcome[1]	Work Context	Key research findings and exemplars[2]
Psychological factors or traits[3] e.g. interpersonal trust as a basis of motivation, member ability, member personality, group member preference for collective behaviour or egocentric behaviour.	Improved team performance.	Naval technical school trainees.	Collectively-oriented teams outperformed the individual performance of team members by polling resources and correcting errors (Driskell 1992).
	Group performance.	Undergraduate students in education.	Trust indirectly affects group performance by moderating the relationship between motivation and performance (Dirks 1999).
	Team output (productivity).	51 teams in 4 organisations (industry not identified).	The higher the level of general mental ability, conscientiousness and emotional stability, the higher the team output (Barrick et al. 1998).

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[1] Using the terminology used by the investigating researchers.

[2] Cohen and Bailey (1997) provided a comprehensive meta-review of group research on 54 teams in organisations that provide numerous additional examples by these and other similar group properties. Importantly, in their framework of team effectiveness, Cohen and Bailey reviewed other research studies across multiple group characteristics.

[3] Some researchers identify traits as standalone factors (e.g. Dirks 1999); others categorise traits under team composition (e.g. Barrick et al. 1998).

In Table 1, a significant aspect of learning by groups is the *instrumental* nature of the group characteristic under study for the purposes of an organisational output often identified as performance. Dominantly in this category of literature, learning means changing a group characteristic as a *means* to generate an *end*, like group performance. The exemplars identified in Table 1 rarely discuss the role of group process or the influence of the work context in influencing learning.

Researchers in these exemplars identify the job profession or group role to provide explanatory descriptive detail to their studies (the exception being Cohen & Bailey 1997 who provide a meta-review of 54 studies of work teams and identify implications comparing several group characteristics including organisational context). The evidence of learning under a Domain 1 view is whether the output is achieved or not and the research methods adopted often use correlative statistics to test the relationship between variables under investigation.

In this entity-as-structure approach, as illustrated by the exemplars in Table 1, the context that surrounds the group under scrutiny is relatively undifferentiated or not considered of analytic interest. So a research implication is that a product development team within one high technology organisation, given similar input variables would expect to deliver similar output results. Such prescriptive assumptions are consistent with an objective view of reality and the expectation that research of this kind can be generalised and extrapolated to other contexts and at later points in time. But as McGrath (cited in Cohen & Bailey 1997: 278) cautioned in 1986, 'groups should be studied in context' and as a separate phenomenon. Cohen and Bailey (1997: 280) additionally observed a decade later: 'Studying groups in context means taking seriously the systemic notions of levels in organizations. Groups are embedded in larger social systems that influence how they behave and perform … future research needs to examine behavior and performance at multiple levels and generate theory to explain the conflicts that are bound to occur'. Now, more than a decade after Cohen and Bailey's meta-review was completed, does a Domain 1 entity-resource view hold ongoing relevance for researchers? I address this issue next.

The continued relevance of an entity-resource view for collective learning practice

The psychological and structural approaches to group learning categorised as Domain 1 literature have been extended from human relations approaches studying small group behaviour during the 1950s and 1960s (Lewin 1951; Mills 1967) and paralleled by the introduction of models of the modern organisation and theories of administrative behaviour (Aram 1976; Taylor 1911; Weber 1964). The concept of group learning became more prevalent in the 1990s as organisations recognised the contribution of human knowledge to organisational performance as more than a personnel administration function, with group structures more frequently designed to organise, manage and deliver work.

By the beginning of the twenty-first century, organisational researchers moved beyond organisations as combinations of physical infrastructures and people to recognise that they are social constructions influenced by processes of learning (Hosking & McNamee 2006; Sayer & Walker 1992; Thompson 2003), an issue I discuss in further detail in Section 2.3 when I review Domain 2 literature. However, the legacy of a prescriptive entitative view remains. For example, Figure 2 on the next page illustrates how a continuing focus on the objects of learning in the fields of education, human resources and business regards group structures as merely an intermediary spanning level that sits between *individuals* and *organisations*, the 'real' entities that matter at work.

Despite the rhetoric of 'team' and 'teamwork' (Legge 1995), disciplinary conversations on learning still orient towards individual entities known as learners and units of knowledge, skills or competencies. For example, researchers argue that in education, policymakers who influence the funding of educational strategies must move beyond considering the role of education as primarily preparing individually-skilled workers for the workplace (Harvey 2000) or creating product-oriented views of competency and learning (Hager 2004; Velde 1999). In contrast, new ways of conceptualising the transition process between school and work beyond transfer of skills are needed. For example, Stokes and

Wyn (2007) suggest that Australian youth *work and study in parallel with many others within and across* co-existing contexts, so that concepts of learning need to recognise this simultaneous and identity-shaping complexity. Similarly, although peer learning through group assignment participation is increasingly common in higher education (Boud et al. 2001), group assessment and developmental learning across portfolios of subjects are not. More innovative partnerships spanning education and work are needed that recognise collective forms of learning from people co-participating in diverse activities that cannot be conventionally classified into disciplinary contexts (Seddon et al. 2005).

Figure 2
Disciplinary influences that continue to
reinforce an entity-resource view of collective learning

Achieving firm performance and
advantage from firm resources
(Nahapiet & Ghoshal 1998; Wernerfelt 1984, 1995)

The vocabulary of **Business**:
• competitive advantage
• assets and resources
• performance
• capacity

Preparing competent
individuals for the workplace
(Brown et al. 2003; Harvey 2000)

**Workplaces where
groups learn**

• Training programs
• Skills courses
• Competency credentials
• Apprenticeships
• Continuing education

The vocabulary of **Education**:
• skills
• disciplinary knowledge
• individual learning
• competency
• curriculum
• pedagogy

Leveraging human resources
for individual and organisational benefit
(Bratton & Gold 2007; Ruona & Gibson 2004)

The vocabulary of **Human Resources**:
• skills
• jobs
• tasks
• training
• competency

In business workplaces, the resource-based view of the firm (Wernerfelt 1984; 1995) continues to influence the perception of employees as interchangeable economic assets who can be instrumentally deployed to gain competitive

advantage at the firm level. This has been supported by human resource models that have adopted a functional view of jobs as mapping one-to-one to individuals (e.g. the job characteristics model developed by Hackman & Oldham 1976; 1980) and job learning as skill or competency training (Kontoghiorghes 2002; Mulcahy & James 2000). In Australia, the industry uptake of competency packages facilitated by the Australian National Training Authority has reinforced this resource view through an extended period of education-industry collaboration by structuring industry training agendas from 1992 to its dissolution in 2005 (Bowden & Masters 1993; Kellie 2002).

Among researchers and practitioners, a vocabulary of collective competence (Boreham 2004) and new taxonomies for collective learning (Garavan & McCarthy 2008) are needed to challenge this dominant resource orientation of people within organisations. While many human resource functions now address both processes and outcomes of learning at individual, group, organisational and even inter-organisational levels (Zhao 2000), the concept of collective learning as generalising and built from individual skills training remains prevalent.

Benefits and limitations of a Domain 1 entity-resource view

In Section 2.2 so far, I have identified the objectivism that derives from a particular contested philosophy of science perspective underpinning psychological and structural approaches to Domain 1 group learning. I have reviewed some exemplars of each approach and discussed how this entitative view still contributes to product- and outcome-oriented conversations in education and industry.

In summary, my characterisation of an entity-resource view exhibits mostly the benefit of simplicity but retains several limitations. The concept of the material physical world around us and including us appears highly attractive and useful. What we can see, do and talk about in life and at work provides important visible clues as to how we might act and direct our lives. Abstractions called organisations do pay individuals to perform work in departments that can be

variously seen as financial spreadsheets completed by Janet, the finished factory built by the facilities team or improvements in market share delivered by the organisation. But when we attribute learning to visible end-states or alternatively generalise representations of knowledge in individual minds, we undervalue the experiential, interpreted, local, shared and constructed nature of human action. This restricted view explains group learning at work as logical and normative, that determines predictable outcomes for human behaviour with regularity.

That human behaviour unfolds idiosyncratically both by individual and by various collectivities, at different times, in different locations and often in other unexplainable ways despite concerted efforts to the contrary, suggests that a Domain 1 view of learning suffers from conceptual and practical limitations that must be addressed. I move next to my review of Domain 2 literature where researchers have challenged, revised and enhanced their understandings of collective learning at work.

2.3   The activity-system view of learning: Group processes, situatedness and community

This section discusses the research literature that I categorise as Domain 2 in Figure 1 and that I characterise as representing an activity-systems view of learning.

In contrast to the objective view of reality that underpins Domain 1, Domain 2 literature assumes a social view of reality (Berger & Luckmann 1966), where actors experience, interpret and construct what it is to be in the world. Human understanding involves acts of interpretation that are phenomenological and must be experienced (Schütz 1967; van Manen 1990). Understanding develops intersubjectively with others through being in the world (*Dasein*) where actors actively participate in constructing their social world, rather than just interpreting it (Heidegger 1927/1962; Husserl 1931/1988; Mannheim 1952; Schütz 1967). Further, understanding is mediated by symbols, language, written texts and artefacts that form the basis of communicative action (Bleicher 1982; Blumer

1969; Blumer & Morrione 2004; Mead 1934/1962) and communicative competence (Habermas 1981/1987; Habermas & Outhwaite 1996).

The separateness of mind/body, person/world and means/ends that represents a Domain 1 view of learning has long been challenged philosophically (Buber 1970; Dewey 1916/1966; 1925/1958; Ryle 1949/1963) and remains a contemporary debate among learning scholars (Easterby-Smith et al. 1999; Halliday & Hager 2002; Hodkinson 2005; Hodkinson et al. 2008; Rainbird et al. 2004). For example, Dewey argues that the nature of human experience is not primarily cognitive; it involves an ongoing series of 'doings and tryings' where people discover the connections between things and their consequences (Dewey 1916/1966: 140). Further,

> ends always *emerge* in the course of inquiry. Means are indistinguishable from the end in a given context until the process of inquiry is complete (Garrison interpreting Dewey, cited in Halliday & Hager 2002: 433, italics in Garrison).

> [Therefore] ends are contextual and revisable, apt to transmute into means for redirecting action … ends-in-view are foreseen consequences that pre-interpret events and provide possibility … they require constant reinterpretation (Dewey [1958], cited in Halliday & Hager 2002: 433).

The determinism and causal links valued in Domain 1 are replaced in a Domain 2 view by a call for holism, with the recognition that actors influence their environment and the environment influences them in mutually constitutive and 'transactional' ways (Dewey & Bentley 1949; Emirbayer 2002). Dewey's early flagging of the importance of context recognises the local and situated nature of actors' experiences and how researchers take up this implication has been significant in influencing the direction of situated learning literature categorised as Domain 2.

In unpacking the relationship between actors and their environment, the work of sociologists (Bourdieu & Wacquant 1992; Elias 1970; Giddens 1984; Parsons 1937; Parsons & Shils 1951/1962; Simmel 1964, 1971) has influenced where learning researchers have focused their analytic lenses. For example, Giddens (1984) argued that actors initiate social action and interaction. At the same time, society comprises rules, procedures, resources and relationships that structure how

those social interactions are continually being produced and reproduced. Giddens' theory of structuration highlights the ongoing process by which 'social practices are ordered across time and space [rather than] the experience of the individual actor [or] any form of social totality' (Giddens 1984: 2).

These social practices are continuously enacted and become repetitive, habitual and institutionalised. Further, 'patterns of relations in groupings of all kinds [range] from small intimate groups to social networks, to large organizations … [such] enduring cycles of reproduced relations' create many examples of systems that exist in society (Giddens 1984: 131). To better understand the various structuring practices that create these patterns of relations, researchers have examined a variety of factors that influences *learning as the change in enactment of social practices* at work. For example, such factors as culture (Conner & Clawson 2004; Cook & Yanow 1993), rules (Emmet 1966; Mills & Murgatroyd 1991), hierarchy (Ashkenas et al. 1995; Popper & Lipschutz 1998), power (Blackler & McDonald 2000; Cohen & Bradford 2005; Edmondson 2002; McKinlay & Starkey 1998; Pfeffer 1981), identity (Chappell et al. 2003; Jenkins 2004; Whetten & Godfrey 1998), gender (Butler 2004; Mills & Tancred 1992) and other institutional phenomena. Often the influence of these factors is described as being 'woven together' to form the organisation (Strati 2000: 64-82) or represent the texture of a quilt that occasionally needs to be darned or mended (Gherardi 2006: 164-188). The implication of such metaphors is the privileging of the system of interest, most often the organisation and the work performed within it.

The role of activities and *how* work is performed has been of particular interest to collective learning because linked activities as processes are often the primary means by which human action across individuals is coordinated and performed. Thus a processual view of learning for Domain 2 literature is a significant basis of differentiation from the Domain 1 analytic focus on outcomes and ends. The theorisation of activity in learning as also artefact-mediated and object-oriented has been influenced by the contributions of Vygotsky and his students Leont'ev

and Luria (Alanen & Pöyhönen 2007; Daniels 1996; 2001; van Oers et al. 2008; Vygotsky 1978; Wertsch 1991). Originally focused upon understanding child psychology and development, Vygotsky argued that human agents and objects in the environment are mediated through cultural means, tools and signs (Vygotsky 1978: 40). He also developed the concept of the zone of proximal development as representing the distance between independent problem solving and guided problem solving with more capable adult peers (Vygotsky 1978: 86).

The extension of Vygotsky's original concept of mediation to models of mediated collective activity is most associated with Engeström and colleagues (Engeström 1999; 2001a; 2001b; Engeström et al. 1999). The concept of mediated objects that have their own agency is a characteristic also of actor network theory that has influenced postmodern views of learning (Latour 1993; Law & Hassard 1999). The dominance of the processual-and-object[4] view has also led to what is now called 'the practice turn' to organisational studies (Gherardi 2001; Nicolini et al. 2003; Schatzki 2002; Schatzki et al. 2001).

The philosophical underpinnings of the world experienced as social reality and researchers' search for factors that influence the structuring of a system of interest has generated three interrelated strands of literature on collective learning that I now discuss. These strands are identified separately for analytic convenience, but several researchers span elements of these strands in their discussions on collective learning. Each strand's assumptions of time and space are noted in the accompanying parentheses below:

- *Strand 1*: Learning that is facilitated by group activities, processes and conditions (time as chronological progression or contributing to stages of development; space as the site of learning or mediating aspects of learning).

- *Strand 2*: The situatedness of context that influences the learning of groups (time-space as relevant local specific circumstances).

- *Strand 3*: Learning in/as communities of practice (time-space as relevant local specific circumstances).

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[4] Schatzki in his theoretical work calls objects 'material arrangements' (Schatzki 1996, 2002).

I discuss each of these strands in sequence highlighting exemplars that demonstrate various Domain 2 characteristics. I then integrate these three strands to discuss the continued relevance of a Domain 2 view of learning before concluding my review of Domain 2 literature with a summary of its benefits and limitations.

Strand 1: Group activities, processes and conditions

The difference between *how* groups do work (i.e. measures of description like activities, interdependence, role, and measures of efficiency like productivity and goal delivery) and *how well* groups do work (i.e. measures of effectiveness like shared values, level of collaboration, trust, cohesiveness) is often called teamwork (Hackman 1990; Katzenbach & Smith 1993). The implication is that teamwork generates learning that contributes to team performance (Chan et al. 2003) as well as to other areas that benefit the organisation, e.g. job satisfaction (Rispens 2006), resource optimisation (Wernerfelt 1995) or competitive advantage (Edmondson & Moingeon 1996).

The recognition that time and group dynamics affects the type of work and the qualitative relationships between and among group members is illustrated by one of the earliest yet still pervasive models of group development. Tuckman theorised originally four (Tuckman 1965) later five (Tuckman & Jensen 1977) stages of group development:

- Stage 1: Forming – When groups are formed, they execute a process of discovering what interpersonal behaviours are acceptable and form initial impressions that shape intersubjective actions.

- Stage 2: Storming – Groups must manage through intragroup conflicts by seeking structural or rule clarity. There are emotional as well as rational reactions to task requirements.

- Stage 3: Norming – Group cohesiveness emerges with the 'rules of engagement' being clarified and an open exchange of others' views.

- Stage 4: Performing – Groups become more interdependent with energies focused on task and outcomes as roles and responsibilities adapt.

- Stage 5: Adjourning – A process of disengagement and moving on and recognising a sense of completion.

What Tuckman and Jensen (1977) highlighted through their model is that group development occurs progressively. Unlike the exemplars discussed in Domain 1 that focus on time-invariant causal links between a limited set of variables, they suggest that in *each* stage of development, learning behaviours will vary. This assumption is similar to the chronological progression of Dreyfus and Dreyfus' model of stages of competency (1986) that has formed the basis of industry and organisational competency-based training for individuals (Hager 2004; Mulcahy & James 2000).

In Kasl, Marsick and Dechant's (Dechant & Marsick 1991; Kasl et al. 1997; Marsick & Kasl 1997) research-based model, they believe team learning (their term) requires attention to the various *conditions* that influence team *processes* and that time as experienced by the group contributes to important understandings about the purpose, constraints and outcomes of groupwork. For example, if group outcomes are urgently required, groups may tend to prioritise instrumental aspects of achievement or 'safe' conventional approaches, perceiving a lack of time or patience by their leaders to explore more open-ended options. Marsick and Kasl (1997: 158) suggest that 'group learning is enhanced if [team members] learn to reconceptualise time as a resource [especially when] relevance is not immediately apparent'. In developing their own model of team learning, Kasl et al. (1997) illustrate how different uses of time as a resource contribute to various modes[5] of group learning (Table 2 on the next page). Their research suggested that groups may move in and out of these various modes, highlighting that 'a team's development as a learning system' is more complex than a process of 'one-way stepwise progression' (Kasl et al. 1997: 229).

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[5] Although the authors use the term 'mode' in their paper to distinguish from linear successive conceptions of one 'stage' leading to another, they nevertheless use stage, as in 'fragmented learning stage', when discussing team learning conditions and processes. Table 2 uses their terminology.

Table 2
Kasl et al.'s (1997) model of team learning

Stage	Team-learning conditions	Team-learning processes	Role of time
Fragmented learning	• Teamwork is perceived as unnecessary • Members do not value interdependence • Operating principles are primarily individual with little attention paid to relationships	• Members retain initial frames • Little or no boundary crossing occurs • Individual rather than group experimentation • Perspective integration is limited	• As an individual resource
Pooled learning	• Team is valued as a context for individual learning and a coordinating mechanism • Members are open to hearing others' views beyond task objectives • Operating principles allow negotiation of differences and conflicts	• Reframing occurs but is externally-imposed or catalysed • Members cross boundaries in order to achieve task accomplishment • Experimentation remains at the individual learning level • Perspective integration occurs but can be impeded by interpersonal conflict	• As a shared team resource
Synergistic learning	• Teamwork is valued as enriching and has the potential to lead to break-through learning • Ideas are openly expressed • Operating principles address relationships and each other's growth and development	• Members frame individual and collective views • The team becomes boundary-less as information is sought and shared freely • Experimentation is frequent • The team acquires collective memories that enable insight	• As an incubator for cycles of reflection and action

Source: Summarised and extracted from Kasl et al. (1997: 241).

Although this model goes beyond conventional group dynamics and surfaces the limitations of a stepwise progression, nevertheless its implication remains that a 'preferred' objective is to get the team to some state (in this case, the synergistic stage) that is specifiable. The problem with both the Tuckman and Jensen (1977), and Kasl et al. (1997) models is that,

> they assume there are finite number of stages or at some stage, learning can be complete … or that stages are distinct allowing articulation of stage characteristics that can be readily assessed and checked off systematically (Johnsson & Hager 2008: 528).

Therefore, the benefit of this Domain 2 strand over Domain 1 literature is the recognition that collective learning is a time-dependent developmental process that is structured by the conditions for learning and the activities and processes that are performed by actors working in coordination with each other. But this strand by itself is insufficient. I next move on to considering the role and influence of context in collective learning[6].

Strand 2: The situatedness of context that influences the learning of groups

The Domain 1 literature reviewed in Section 2.2, for most part, did not discuss the local situated circumstances that surrounded the phenomenon under study, given Domain 1 researcher assumptions that findings could be effectively transferred to other sites of learning, industries, teams or at other times. The situatedness that characterises Domain 2 literature challenges this lack of local sensitivity and instead argues that contextuality is the means by which a system of interest can be scoped and understood. It is an integral part of altering and reconstructing actors' understanding and interactions with the world.

The difficulty with contemporary theorisations of context remains how it is defined. Most often, context is 'the environment, background, setting, circumstances, situation or site in which learning occurs; or those conditions relevant to the phenomenon under examination'. (Hager et al. 2007: 1). This sense of containment is expressed as 'an empty slot, a container into which other things are placed. It is the 'con' that contains the 'text', the bowl that contains the soup. As such, it shapes the contours of its contents; it has its effects only at the borders of the phenomenon under analysis' (McDermott 1996: 282). Alternatively, context has assumed a 'virtually mythic allure in recent decades of social and humanistic theory' (Schatzki 2002: 60) to become anything and everything.

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[6] I defer discussion of the contemporary take-up of Vygotsky's activity theory as exemplified by the work of Engeström and colleagues to later in this section, since their work incorporates aspects of all three strands.

The importance of context as situatedness that matters for learning has been signalled as relevant in discourse (Hak 1999; Jabri 2005; Van Dijk 1999; Watson & Seiler 1992), cognition and communication (Engeström & Middleton 1996; Kokinov 1997; Lemke 1997), workplace judgement (Athanasou 2002; Halliday & Hager 2002), organisational change (Marshak 2002), organisational learning (Bojesen 2004; Contu & Willmott 2003; Rousseau & Yitzhak 2001), lifelong learning (Edwards 2005) and workplace learning (Brown et al. 1989; Chaiklin & Lave 1993; Hager 2005b; Lave & Wenger 1991; Suchman 1987) to name just a few categories and a few exemplars.

As context applies to collective learning, prototypical Domain 2 views often highlight the researcher's expectation of the factors in the group environment on which collective learning may be differentiated. For example, in Wong's (2002) doctoral thesis titled 'Investigating collective learning in teams: The context in which it occurs and the collective knowledge that emerges from it', her section on team context (Wong 2002: 26-34) included the following factors/characteristics that she considered influential to her four work teams located in a German financial services company:

- Strength of strong ties.
- Channelling requisite variety (of work).
- Scanning (i.e. the process whereby members seek information).
- Participatory decision-making.
- Structuring mutuality (i.e. modes of engagement that strengthened mutuality).
- Task interdependency.

Using a mixed methods (Tashakkori & Teddie 2003) approach, Wong (2002) provides both quantitative and qualitative support for her findings, although her study is more indicative of a position straddling Domain 1 cause-and-effect expectations and Domain 2 context as a container and team conditions approach as discussed by Kasl et al. (1997).

Fenwick (2008) in her recent review of 208 articles written during 1999-2004 that focused on understanding the relations of individual-collective learning in work, suggests that:

> what remains missing in many 'container' accounts of context and the collective is a theorization of the precise relations that unfold at the interface of the individual with many surfaces of the collective. Questions inviting more fine-grained analyses are about how and why individuals use different objects in their work contexts in particular ways, and what learning is actually produced in these uses (Fenwick 2008: 238).

An exemplar that may be more in line with Fenwick's comments is Opie's (2000) study of three multidisciplinary health teams in New Zealand. Opie differentiates her study from the then-prevailing literature on teamwork in the following ways:

> Unlike much of the literature on teamwork in health care, this book emphasizes the importance of organizational context in which teams work … teams exist because they have an organizationally mandated purpose and role. Therefore the organizations in which the teams exist must develop some reasonably sophisticated account of the work that teams are to do, how that work is to be produced, and how effectiveness can be conceptualized and observed.
>
> … An effective team is one that attends to and works with the different knowledges of clients and their situations that are made available to it through discipline-specific accounts and accounts of clients and families (which may also differ from each other). The work of the team requires engagement with such differences … to ensure, as circumstances evolve, the continued elaboration and revision of team goals and care plans (Opie 2000: 5-6).

As Opie (2000) describes it, the work of the team must creatively integrate 1) the practical constraints of achieving organisational goals and desired outcomes, 2) the knowledges that are contained within disciplines enacted by team members as mechanisms towards achieving them, and also 3) the local situations of team members and their clients with whom they interact on a daily basis. Further, this dynamic process changes and gets continually revised; metaphorically, the collective knowledge of the team is constantly in motion (Nespor 1994).

Context as situating learning connotes actors as actively constructing their contexts of learning and specifically creating the notion of community. The seminal empirical work of Lave, Wenger and colleagues (Chaiklin & Lave 1993; Lave & Wenger 1991) led to the introduction of 'communities of practice' (Lave

& Wenger 1991; Wenger 1998; 2000) as an encapsulation of social practice that highlights collective experience; one that goes beyond the descriptive structure and properties of a group. This is discussed next.

Strand 3: Learning in/as communities of practice

When individuals participate in a community of practice (CoP), four dimensions of learning can be identified (Wenger 1998: 5):

- Learning as doing (practice),

- Learning as belonging (community),

- Learning as experience (meaning), and

- Learning as becoming (identity).

At the time the term CoP was introduced, it reinforced the embodied nature of knowing and doing and the inherent social nature of participatory activities. It also started to foreground the importance of informal learning (Eraut 2004b; Fuller et al. 2003; Garrick 1998; Hager & Halliday 2006) as modes of everyday practice that could cut across formal departmental or structural groupings. So a mentor network, an orchestra of musicians and an accounting profession network might be examples of CoPs. They have a practitioner focus drawn from various functions of an organisation (and even beyond) and they participate together because of a common domain that also generates a sense of shared values, community and identity. In this sense, CoPs differ from mandated project teams or cross-functional business teams that may have very specific instrumental and time-constrained requirements for performance.

So CoPs demonstrate several characteristics of a Domain 2 view: they are underpinned by notions of social reality; they are experientially-based and process-oriented through direct participation of members with each other; they represent more than the sum of their parts through the cohesiveness of the sense of identity and community; and they are sensitive to the local circumstances of the members through the activities and momentum of the specific CoP. By this

account, the learning that is generated from a CoP should be highly effective and an excellent example of collective learning.

Critiques of CoPs point to the dogmatic link that Lave and Wenger's (1991) definition of a CoP suggests:

> A community of practice is an *intrinsic condition for the existence of knowledge …* participation … is an epistemological principle of learning (Lave and Wenger, cited in Hodkinson & Hodkinson 2004: 5, italics by critiquing authors).

According to Hodkinson and Hodkinson (2004), this view of learning privileges physically close, observable and coherent groups, becoming less relevant in characterising distributed learning environments, virtual teams or experienced workers. Henriksson (2000) shared similar concerns, focusing on the metaphor that the term 'community' connotes for the imagery of unitary harmonious work within organisations and the singular notion of culture used by many researchers. She cautions against the normative tendency to prescribe CoPs as panaceas, such as demonstrated by Smith's enthusiastic extension to 'communities of competence' (Smith 2005). Henriksson worries that CoPs may need to rise beyond their local focus to interpret

> the relative significance of non-local cultural elements [such as gender or professions] otherwise it remains difficult to investigate … different histories of participation, asymmetries in ability to participate …[or having] the legitimate rights to define the meaning of events or artefacts in practice (Henriksson 2000: 11).

Billett echoes Henriksson's concerns, with another perspective that states 'workplaces intentionally regulate individuals' participation … this regulation is a product of cultural practices, social norms, workplace affiliations, cliques and demarcations' (Billett 2001b: 312). Participation is therefore not tension-free in balancing workplace affordances and individual engagement (Bryson et al. 2006). These illustrative critiques suggest that the uniform coherence depicted by Lave and Wenger's (1991) 'ideal' definition of a CoP in action may not necessarily reflect the messy, revisionist world in which people live their everyday organisational lives.

These three strands of group processes, situatedness and community have contributed to what I characterise as the activity-system view of collective learning. I move next to summarising and critically reviewing its continued relevance through illustration of the work that Engeström and colleagues have developed using contemporary enhancements to Vygotskian activity theory.

The continued relevance of an activity-system view for collective learning practice

Yrjö Engeström, solely and with his colleagues, has generated a significant body of research that is deeply grounded in practice and that uses the local details of disciplinary knowledge and contextual diversity to conceptualise learning in everyday work settings. Engeström leads the Center for Activity Theory and Developmental Work Research (CATDWR) at the University of Helsinki. The center's research work is based on a theoretical framework called cultural-historical activity theory (CHAT) in which the idea of expansive learning is of central importance (Engeström 2001a, 2001b, 200c). Vygotsky's initial concepts of object mediation and proximal development in matters of child psychology and development (Vygotsky 1978) have been extended through various generations of model development and significant empirical testing (mostly in healthcare settings) into a methodology of developmental work research (DWR) that helps practitioners (re)design their activity systems (CATDWR 2009).

In reviewing Engeström's research work published around the turn of the twenty-first century, I characterize the empirical healthcare studies (e.g. Engeström 2001b, 2001c, 2004a, 2004b) as representative of Domain 2 learning literature. They exhibited multi-disciplinary team-oriented social practices in the full sense of various communities of practice. Learning developed from contextual insights that were deeply embedded in the professional healthcare activities of practitioners. For example in Engeström (2001c), the institutionalised activity systems included 1) clinics of the Helsinki University Central Hospital, 2) the primary health care centers operated by the City of Helsinki, 3),4),5) Three caregiver systems, 6) the management of the University Centre Hospital, and 7) The city's Board of Health.

In discussing illustrations of expansive learning during a patient session with various caregivers as a large team, Engeström refers to various boundary-crossing actions that cut across established activity systems (e.g. suggestion of a new report to be distributed to another activity system that did not currently receive it) and how the tensions were negotiated among practitioners about its value, utility and impact on work in those various activity systems (Engeström 2001c: n.p.). In this investigation, the characterisation of time-space remained chronological and spatial in the conventional sense of Domain 2 and illustrated through the conversational 'turns' as practitioners were facilitated through a laboratory session by the researchers. As Engeström admitted in his paper, this session is not totally representative of an actual patient consultation and its outcomes failed to reach a mutual agreement among the practitioners regarding a one-year care plan for the patient.

In characterising the world as multiple activity systems through the CHAT conceptual framework, Engeström essentially never challenges the inherent coherence pre-supposed by the notion of a system. Therefore the primary health care centre as an example of one activity system has an existing structure, relations, actors, practices, rules, objects and purposes. This health care centre was created as a social interpretation, a commonly-understood social creation of what a health care centre as actors in the world have defined it to be. It has a history of structured and structuring relations so it is expected to perpetuate and persist through a series of enacted social structures and practices (Schatzki 2006).

But its configuration is only enacted and made 'real' through the ongoing lived experiences of humans and objects interacting to (re)produce meaning. As such, the coherence of structuring relations that 'make up' a system is arbitrary. This is why, under this theoretical model, there is always a need to *boundary cross* when perspectives do not fit the coherence of any one activity system (Engeström 2001c; Engeström et al. 1995) and why alignment *within* an activity system is valued and desirable. Although a challenging change effort, the 'look and feel' of

a health care centre could be entirely different depending on the commitments of agentic individuals working in concert with each other. This sense of axiological 'oughtness' (Emerson 1997: 154) belongs to humankind and has a relational responsive character, i.e. judging requires judging what and for whom. Oughtness is made visible only through action and talk and their consequences. It does not reside in the dead configuration of an activity system that has coherence and privileges in its own right.

Engeström's most recent work on the concept of *knotworking* (Engeström 2007; 2008) and *co-configuration* (Engeström 2004a) provide a more "Domain 3'-like sense of time in nonlinear kairotic ways (special qualitative moments, sometimes colloquially called 'aha moments') and encountering many different configurations that must be worked out by co-experiencers in the moment:

> The notion of a knot refers to rapidly pulsating, distributed and partially improvised orchestration of collaborative performance between otherwise loosely connected actors and activity systems. Knotworking is characterised by moments of tying, untying and retying together seemingly separate threads of activities … The center does not hold. The locus of initiative changes from moment to moment within the knotworking sequence (Engeström 2008: 194).

Nevertheless, the limitations of an activity system as a coherent and required system of interest still apply. This is the reason why I position the contemporary implementation of the CHAT theoretical methodology still within the Domain 2 learning literature.

The various Domain 2 exemplars for collective learning discussed in Section 2.3 starting with Tuckman and Jensen (1977) and ending with Engeström (2008) demonstrate the diverse range of research developed over thirty years that embraces life as socially-interpreted and enacted practices. I conclude this review of Domain 2 literature by summarising its benefits and limitations.

Benefits and limitations of a Domain 2 activity-systems view

In Section 2.3, I have demonstrated how taking a social view of reality requires researchers to deal with the messiness of human interpretation. Actors who

performing work collectively and enact social practices must accommodate a variety of contextual factors, activity systems, artefacts and relations. Actors (and researchers), may not agree on what should be foregrounded as attentional resources (Ocasio 1997). They often look to others and their contextual situations for cues and clues to determine pragmatically and practically how to go on (Wittgenstein 1968).

In my view, Domain 2 collective learning literature is materially different from, and of a higher order to, Domain 1 literature. The benefit of moving from a causal objective view of reality to a socially-interpreted one clearly recognises the sociality and constructivism that constitute a world of human actors. This view of reality embraces holistic, embodied and linked processes that influence the experience of learning and recognises actors as natural contextualising agents and subjective interpreters. However, it also raises a limitation, I believe, characteristic of where Domain 2 learning literature; it is 'stuck' in the safety and security of views about coherent systems of interest. Two systems are particularly relevant to my investigation of collective learning: 1) the notion of a coherent *organisation* where work is performed, measured against what is considered the privilege of the system, and therefore rewarded; and 2) the notion of *discipline* and its associated bodies of knowledge, skills, roles, profession, paradigms and expectations.

Organisations and disciplines loom larger than life in our modern society. They provide our economic livelihood, give us with a sense of belonging and identity, structure the passage of our lives and provide coherence to the microinteractions of daily activities. Yet researchers have recently started to challenge the notion of an organisation (Clegg et al. 2005; Gherardi 2006; Shaw & Stacey 2006) as less useful in characterising our life at work and our complex world in general. Others challenge the paradigmatic myopia (Pfeffer 2001) that suggests any one individual or collective is limited by the roles currently taken or professional mandates that specify good operating practices.

As actors, we enact multiple fields of practice and play (Bourdieu 1998; Bourdieu & Wacquant 1992), are part of multiple communities of practice, need to multi-task and accommodate multiple priorities seemingly all at once and all the time. Yet life is a practical matter: we somehow make sense of it and work it out. At times, we may feel our measures of success indicate we are less than optimal by some external standards but we rationalise our motivations and behaviours due to the variety of competing priorities in our lives. The systems of interest that characterise a Domain 2 view of learning provide a useful, structuring safety net that helps to guide our actions and our modes of engagement. But they do not direct them in unvarying, all-knowing ways.

I now move on to reviewing Domain 3 literature that adopts an alternative view of time-space that dismantles this transcendent view of systems of interest and focuses on interactional understandings that emerge from lived experience.

2.4 The ecological-relational view of learning: Patterns of group interactions

This section discusses the research literature that I categorise as Domain 3 in Figure 1 and that I characterise as representing an ecological-relational view of learning.

Domain 3 differs from Domain 2 in its assumption about the impact of time and space in framing what issues deserve attention and what concepts should be theorised that are relevant to collective learning. In Domain 2, the conceptualisation of *time* means clock time, time structured by before and after relations as in conventional theories of organisational change (Huber & Van de Ven 1995; Waddell et al. 2004). In Domain 3, the conceptualisation of time is nonlinear and indeterminate. Examples are time recognised as polychronic (Hall 1989; Hall & Hall 1990), i.e. the simultaneity of many things occurring at once; 'teleological', where actors are motivated from their past experiences through current acting towards an end (Schatzki 2006: 1871) or kairotic (from the Greek *kairos* meaning the right opportune moment) where something special happens in

human activity or understanding as in military strategy or rhetoric theory (Sipiora & Baumlin 2002). Furthermore in Domain 3, the conceptualisation of *space* moves from the literal site, place or context for learning (Billett 2001c; Rainbird et al. 2004; West 1996) to metaphoric social spaces of 'in-betweenness' that is dialectically constructed among actors (Falconer 2002; Rowe 2008).

To describe the theoretical underpinnings of Domain 3 literature, I first discuss three time-space conceptualisations that have implications for understandings of collective learning: 1) dialogic simultaneity of self/other, 2) emergence as always in the present, and 3) emergence as novelty in self-organising human ecologies. Dialogism theorises the simultaneity of the relation of otherness and dialogue. It is a Bakhtinian concept (Bakhtin 1981; Emerson 1997; Holquist 1990) that has contributed to the 'discursive turn' in organisational studies (Grant et al. 2004; Iedema & Wodak 1999; Steinberg 1998) that I believe offers broader currency for theories of collective learning. Emergence can be understood as a philosophy of the present (Mead 1932/1959) that theorises the nature of time and human consciousness as always living in the present. This characterisation of time is also viewed by advocates of complexity science in theorising emergence as how novelty or change is brought forth in self-organising human ecologies (Axelrod & Cohen 1999; Gell-Mann 1994; Maturana & Varela 1987; McKenna 2004; Stacey & Griffin 2005).

After this discussion of theoretical underpinnings, I next review how research investigations using dialogic, emergent and complexity concepts contribute to *re*-viewing and *re*-making new understandings of collective learning as Domain 3 literature. I highlight some findings from exemplar empirical studies and identify the issues and gaps that still exist in conceptualising models of collective learning that reflect spatio-temporal considerations. Finally, to conclude the discussion on Domain 3 literature, I summarise the benefits and limitations of adopting an ecological-relational view of collective learning.

Dialogism as the simultaneity of self/other and the relation in dialogue

As a philosopher, Bakhtin made significant contributions to literary studies including the concepts of heteroglossia and polyphony (Bakhtin 1986; Bakhtin et al. 1994) that I do not discuss with respect to my investigation on collective learning. Instead I focus on Bakhtin's concept of dialogism[7] because it provides insight on a relational epistemology founded upon dialogue. As Holquist interprets Bakhtin:

> A dialogue between self and other … is a relation of simultaneity. Dialogism argues that all meaning is relative in the sense that it comes about only as a result of the relation between two bodies occupying *simultaneous but different* space, where bodies may be thought of as ranging from the immediacy of our physical bodies, to political bodies and to bodies of ideas in general (ideologies) (Holquist 1990: 19-20, italics in original).

> Being is a simultaneity … [there is a] uniqueness in my place in life [yet] this uniqueness is shared. [Being] is always *co-*being [Russian *sobytie*] and involves a … *multiplicity* in human perceptions. This multiplicity manifests itself as a series of distinctions between categories appropriate to the perceiver on the one hand and categories appropriate to whatever is being perceived on the other. This way of conceiving them is not, as it might first appear to be, one more binarism, for in addition to these poles, dialogism enlists the additional factors of situation and relation that make any specific instance of them more than a mere opposition of categories. For the perceivers, their own time is forever open and unfinished their own space is always the center of perception … [whereas] the time in which we model others is perceived as closed and finished [and] the space in which others are seen is … the homogenizing context of the rest of the world (Holquist 1990: 22, 25, italics in original).

Thus actors living in a Bakhtinian world cannot <u>not</u> be social; the world is experienced with others and must be lived with others. In this respect, Bakhtin's dialogical approach shares similarities with the dialectical themes found in Ricoeur and Merleau-Ponty, indicating the contestation and fragility of the tensions of opposites (cited in Cunliffe 2008: 131), and Buber's concept of meanings emerging from 'the space between' human and nonhuman phenomena (cited in Bradbury & Lichtenstein 2000: 551). As Ricoeur observes: 'the selfhood

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[7] Holquist who is an acknowledged Bakhtinian scholar, notes that Bakhtin himself never used the actual term 'dialogism' to classify his own body of work. Holquist defends the creation of this synthetic means of categorisation as a way of unifying Bakhtin's heterogeneous body of work that was nevertheless still centred on an epistemology of dialogue (Holquist 1990: 15).

of oneself implies otherness to such an intimate degree that one cannot be thought of without the other' (cited in Cunliffe 2008: 131).

 At the same time, actors occupy a unique time-place; they are unique combinations of corporeal, cognising and affective bodies that can be differentiated. How they act, talk and judge is necessarily from the time-place where they are located, perceiving out into the world. A simplified Domain 1 view would argue that only individuals learn: address the skills and motivations of individuals and the outcome will result in collective learning. The Bakhtinian concept of simultaneity between self and other would refute this argument: no individual learns alone; the concept of individual learning is simultaneously and non-paradoxically, also social and collective learning.

One other Bakhtinian concept is needed here to distinguish the different understandings of time-space relations in Domain 3 learning literature compared to Domain 2. This concerns the expansionary possibilities of Bakhtin's dialogue and the ways that actors must choose in committed relational ways from within their particular situations:

> Dialogue is a manifold phenomenon … [it] is composed of an utterance, a reply, and a relation between the two. *It is the relation that is most important of the three, for without it the other two would have no meaning.* [Thus] dialogue is not … a dyadic, much less a binary, phenomenon … The tripartite nature of dialogue bears within it the seeds of hope … the thirdness of dialogue frees my existence from the very circumscribed meaning it has in the limited configurations of self/other relations available in the immediate time and particular place of my life. For in later times, and in other places, there will always be other configurations of such relations, and in conjunction with that other, my self will be differently understood … the contexts of dialogue are without limit (Holquist 1990: 38-39, italics added).

> What marks the necessary presence of a human subject [in a situation] is the assumption that time and space are never merely temporal or spatial, but *axiological* as well (i.e. they also have *values* attached to them). As experienced by subjects, time and space are always tied up with judgments about whether a particular time or a particular place is good or bad, in all the infinite shadings those terms can comprehend … As a human being, I have no "alibi" in existence for merely occupying a location in it … life will not let me be inactive in it … I have a stake in everything that comes my way (Holquist 1990: 152-153, italics in original).

So it is not enough in a Bakhtinian world, for learning to be socially determined and community-oriented, to accommodate the situated, sociocultural or the

sociohistorical parameters of context as in a Domain 2 view of collective learning. For Bakhtin, time-space also has an axiological dimension, a sense of 'oughtness' that is singular yet in relation. Oughtness requires actors to constantly make choices, choices that are imbued with consequences. 'Individuals must be able to defend each act they commit and each judgment they pass [as there is no] singular unitary standard by which all acts could be judged' (Emerson 1997: 154). Each point of choosing becomes a time-place in which relations are renegotiated or the significance of the actor's personal stake or answerability is reconsidered.

This is why the language of dialogue is so fundamental in Bakhtin's conceptual contributions: meanings proliferate through the multiplicity of contexts where language is used. Actors must constantly deal with a myriad of possibilities for action and pass judgements using cues that help to frame the basis of their inferential understandings (Beckett 2002) and practical actions. Such cues often come from the ways actors talk with each other because the 'I' in talk implicates self and commits self at least provisionally. As Holquist (1990: 154) observes, 'choice is an act in so far as it effects a change between what is and what was, and thus the act is simultaneous with the difference that defines it'. Learning at a collective level is creatively generated from changing configurations of actors who act, talk and judge in unanticipated ways that are responsive to local constraints and the nature of the relations that are provisionally negotiated between them.

Emergence as the past and the future in the present

The second theoretical concept I discuss is the Meadian notion of emergence. Mead is better known for his social-psychological approaches to social behaviourism and symbolic interactionism (Blumer 1969; Mead 1934/1962; 1964; 2001) and his contributions, along with Peirce, Dewey and James, to the development of American pragmatism (Diggins 1994; Murphy 1990; Thayer 1982). I summarise and extract from one of Mead's lesser known works, namely *The Philosophy of the Present* (1932/1959) which, according to Murphy (1959), a

Meadian scholar, was never intended for publication but represented the source material and work in progress for the Carus lectures Mead delivered in 1930.

For Mead, the present is the locus of reality and cannot be separated or differentiated from the past or future. For example, he explains 'pastness' via illustration by referring to the common experience of childhood:

> When one recalls his [sic] boyhood [sic] days, he cannot get into them as he then was, without their relationship to what he has become; and if he could, that is, if he could reproduce the experience as it then took place, he could not use it, for this would involve his not being in the present within which that use must take place. A string of presents conceivably existing as presents would not constitute a past (Mead 1932/1959: 30).

Thus past is past only in its relation to the present. People reorganise or reconstruct their interpretations of the past as ways of understanding the conditions in the past that have led them to their present. They recall events, interactions and happenings and they rationalise them but always from the position of the present. So for Mead, the past is not absolute (i.e. my view of the past has changed but the past as it actually happened is still 'real') but relative.

Why this matters for learning is when we theorise understandings of change, the distinctive character of this notion of time is its irrevocability and novelty. If the past is not the antecedent of the present, you can never return there, you are always in the present. As Murphy observes:

> The distinctive character of the past in its relation to the present is manifestly that of irrevocability. As conditioning the present, as making its occurrence possible, the past must have been of determinate character. It expresses the settled condition to which the present must conform and without which it could not have been what it is … the past is that out of which the present has arisen and irreversibility … has its critical value in terms of such conditioning.
>
> The doctrine of emergence asks us to believe that the present is always in some sense novel, abrupt, something which is not completely determined by the past out of which it arose. A present, if it is really new at all, will have in it an element of temporal and causal discontinuity.
>
> (Murphy 1959: xvii).

So as Murphy (1959) interprets Mead, change is the emergence of something novel by which we re-adjust our understandings of the past and are therefore in a

new relation to the past from our position in the present. Further, we cannot attribute our understandings of something novel causally to a specific event in the past because 'before the emergent has occurred, and at the moment of its occurrence, it does not follow from the past. That past relative to which it is novel cannot be made to contain it … its abruptness is removed by a new standpoint … from which the conditions of our new present are understood' (Murphy 1959: xvii-xviii).

The apparent paradox in reconciling novelty with determinism is answered for Mead in the pragmatist tradition of the value of experience and in theories of nature and evolution, as also embraced by advocates of complexity science:

> Thus new things continually arise, the novelty of whose occurrence is worn down into the reliability of that which becomes familiar. But the thing is preeminently the physical thing of contact experience. We find here the fundamental relation between the future and the past in the present. The distance experience [i.e. anticipations of the future] is the promise of contact experience. The something we can get hold of is the substance to which the qualities of sound, color, taste and odor belong … The process that constitutes the reality of a living being is one that extends beyond the form itself and involves for its expression the world within which this form lives. The reality of the process thus belongs to the world in its relation to the living being … it is an expression of relativity in terms of life (Mead 1932/1959: 37-38).

Illumination on Mead's concept of 'contact experience' can be found in his more well-known texts on gesture and response in human communicative interaction elaborated by his student Blumer (1969; Blumer & Morrione 2004). So for Mead,

> humans take the attitude, the tendency to act, of the other and it is because they have this capacity to communicate in significant symbols that humans can know what they doing … [so] meaning does not lie in the gesture, the word, alone but only in the gesture taken together with the response to it … no one can control or be totally sure of the responses to others and thus of the meaning which will emerge from their interactions (Stacey & Griffin 2008b: 7).

In summary, Mead's (1932/1959) conceptual contributions in examining the theory of time reinforce the irrevocability of experience that is always being reconstructed in the present. Such notions also support the simultaneity of Bakhtin's dialogic self in sharing a world that comprises numerous gestures and responses with and from others that cannot be pre-determined. Mead's temporal

link to the theory of nature situates autonomous humans in a living world that evolves and emerges rather than following some global plan, or shaped by the privileges of activity systems as in Domain 2. In this way, Meadian emergence resonates with Durkheim's concept of emergence about the relationship of individuals in society as not being traceable to any one constituent component (Poggi 2000; Sawyer 2002). Similar principles are espoused by complexity science theorists and the contribution of complexity principles to understand collective learning is the third and last theoretical underpinning that I discuss next.

Emergence as novelty in self-organising human ecologies

The field of complexity sciences[8] has a complicated lineage, related to and influenced by developments in first-order cybernetics (Ashby 1957/1999; Prigogine 1961; 1997; Weiner 1948/1965), second-order cybernetics (Maturana & Varela 1980; Pask 1996; von Foerster 1979; 1984) and General Systems Theory (von Bertalanffy 1950; 1951) and influencing the development of systems approaches that have been applied to the social sciences such as systemic inquiry (Checkland 1981; Churchman 1979), management learning (Argyris & Schön 1978) and system dynamics (Forrester 1961; Forrester & Senge 1980) .

The study of complexity in nature, for example the collective animal behaviour of ant colonies, bird-flocking and termites (Resnick 1996; Sumpter 2005), has used a specialist vocabulary (e.g. agent, colony, population ecology, swarm intelligence, emergence, attractor) that is initially unfamiliar to organisational scholars. This opaqueness has challenged those who bemoan the lack of interdisciplinary takeup of complexity principles for the social sciences and in general (Klein 2004). Part

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[8] The terminology is particularly confusing here among terms that may sound similar. The lay understanding of *system*, infers a collection of parts that cohere together such as a marketing system or an organisation. This is the sense of 'system' that I have used in my review of Domain 2 literature and how I use the term in this thesis when it occurs as a noun. *Systems* as in General Systems Theory (GST), systems practice or systems thinking refers to a particular field or domain founded by von Bertalanffy (1950; 1951) and concerned with inquiring and analysing dialectically with a focus on the phenomenon of interest. Systems theory is *systemic*, i.e. relates to the phenomenon of interest, e.g. a systemic lesion may relate only to the nervous system in the human body. Systemic inquiry is a process most often attributed to Churchman (1979) and Checkland (1981) who used the principles of systems thinking to design an inquiry-based Soft Systems Methodology or SSM. Finally, *systematic* means an orderly or step-by-step process of proceeding.

of the challenge rests in the lack of a clear definition of what complexity science is (White et al. 1997). Dent suggests that the confusion arises more from a reluctance to accept a shift in worldview from what he calls the traditional worldview of 'reductionism, linear causation and entity as unit of analysis' to an emerging worldview that rests on 'perspectival observation, mutual causation and relationship as unit of analysis' (Dent 1999: 5, in particular, see his Table 1 on p.6 for comparative descriptors).

Social science researcher interest has increased in drawing analogies between animal social behaviour in nature with human social behaviour in organisations as a means to better understand how organisations adapt to change (Anderson & McMillan 2003; Backström 2004; Rowe 2008). Academic researchers now converse about the value of complexity principles for human action through specialised journals (*Emergence, E:CO or Emergence: Complexity & Organization, International Journal of Complexity in Leadership and Management*), books (Axelrod & Cohen 1999; Davis & Sumara 2006; Weick & Sutcliffe 2001 and various publications by Stacey and colleagues from the Complexity and Management Centre at the University of Hertfordshire), conferences (e.g. *Complexity and Innovation in Turbulent Times* by the Complexity and Management Centre, University of Hertfordshire; *Complexity Science for Sustainability in Business Processes* by the European Chaos & Complexity in Organizations Network) and theses (Darren 2005; Forsyth 2008; Keyes 2001; Pité 2005).

The purpose of this investigation, however, is not to review a genealogy of complexity science for the field of social sciences or organisational studies; instead, the reader is referred to a comprehensive and useful bibliography of theory and practice sources on complexity science applied to organisational settings provided by Wirth (2007).

Table 3
Complexity principles and their
analogies for human learning

Complexity principle in the biological sciences	Analogy for human learning in the social sciences
• 'Repeated interactions between agents produce complex adaptive patterns at the level of a group [that] cannot be fully understood in terms of the [agent characteristics] themselves' (Sumpter 2005: 5). These interactions are conducted by the agents themselves without the control or manipulation of outside influences. This is the principle of *self-organisation*.	• Human group behaviour cannot be explained with reference to individual characteristics or group structures. Humans, as autonomous individuals, cannot be directed or manipulated to act or learn.
• 'The state of the system at any time depends upon its previous states and is the starting point for future states' (Thelen 2005: 262). 'It is the tenet of dynamic systems that they lose stability to shift from one stable mode to another (attractor states)' (Thelen 2005: 264). This is the principle of *dynamism* that contributes to adaptation.	• Human learning is influenced by time and constantly changes.
• Macro-level or global patterns arise dynamically from the behaviour among local interacting agents. The global behaviour cannot be traced back to the behaviour of any individual agent. Such emergents are novel with respect to the individual agents (De Wolf & Holvoet 2004: n.p.). This is the principle of *emergence* that contributes to adaptation.	• People base their understandings and behaviour on their interactions with others continuously and provisionally. • Novelty occurs when they move through different patterns of interactions or are exposed to heterogeneity. This novelty cannot be traced to any one factor in the context or an individual past.
• Ecologies are nested and coupled. Agent behaviour in populations is the product of many interacting parts that work together to produce a coherent pattern under particular task, social and environmental constraints. Every … behaviour is the condensation of these heterogeneous components (Thelen, cited in Forsyth 2008: 76). This is the characteristic of *ecology*.	• Individuals react and respond to those subsets of larger collectives (e.g. their work groups) with whom they have local interactions. • Diversity and heterogeneity of interactions contributes to shifting patterns, discontinuities and moments in which learning is most meaningful.

Source: Table inspired by Forsyth (2008: 76-78).

In Table 3 on the prior page, I summarise the key complexity principles developed initially through studies in the biological sciences (Maturana & Varela 1987; Sumpter 2005; Thelen 2005; Varela 1979) and identify their analogies for human learning in the social sciences that has relevance for my investigation into collective learning at work.

If these complexity principles hold for human adaptation, specifically the emergence of novelty in collective human behaviour, then they provide a useful theoretical underpinning that challenges conventional researcher understandings of time and space in our physical, conceptual and metaphorical worlds. Bakhtinian dialogism and Meadian emergence, although written several decades earlier during pre-modernism or early modernism, show contemporary relevance for explaining phenomena in widely-different disciplinary fields (i.e. biology and organisational studies). Could it be that the 'paradigm wars' that Pfeffer (2001) and Willmott (2001) refer to between the sciences and across disciplines can reconcile their similarities and differences?

Humankind may stand unique among the species in terms of being 'independent practical reasoners' but it is still of this world and, as MacIntyre (1999) argues, dependent and vulnerable in its animal nature. Human collectivities are practical groupings that pay attention to institutional (e.g. organisational) requirements but are not dominated by them. Like ant colonies and bee swarms, they look to survive, being enabled or limited by the constraints they place on others, or that others place on them. They achieve, adapt and develop towards the best that they can be; they do 'whatever it takes' (McCall & Kaplan 1990) to make work 'work'.

Using three theoretical underpinnings – 1) the simultaneity of the dialogic self/other, 2) emergence of the past and future in the present and 3) emergence as novelty in self-organising human ecologies – I have now identified the time-space considerations that distinguish Domain 3 literature from the other two domains previously discussed. I now move onto reviewing existing Domain 3 research

literature and how they illustrate a re-view of collective learning that is relevant for my investigation.

The nascent landscape of Domain 3 literature

In Figure 3 below, I identify and position exemplar research literature that I categorise as moving into the interactional space of relational practice and adopting relational re-views in collective learning literature. This interactional space is shown as a many-sided shape to reflect the messiness of collective activity and learning in everyday organisational life and its lack of conformance to recognised models.

Figure 3
Domain 3 literature converging on
the 'interactional space' of relational practice
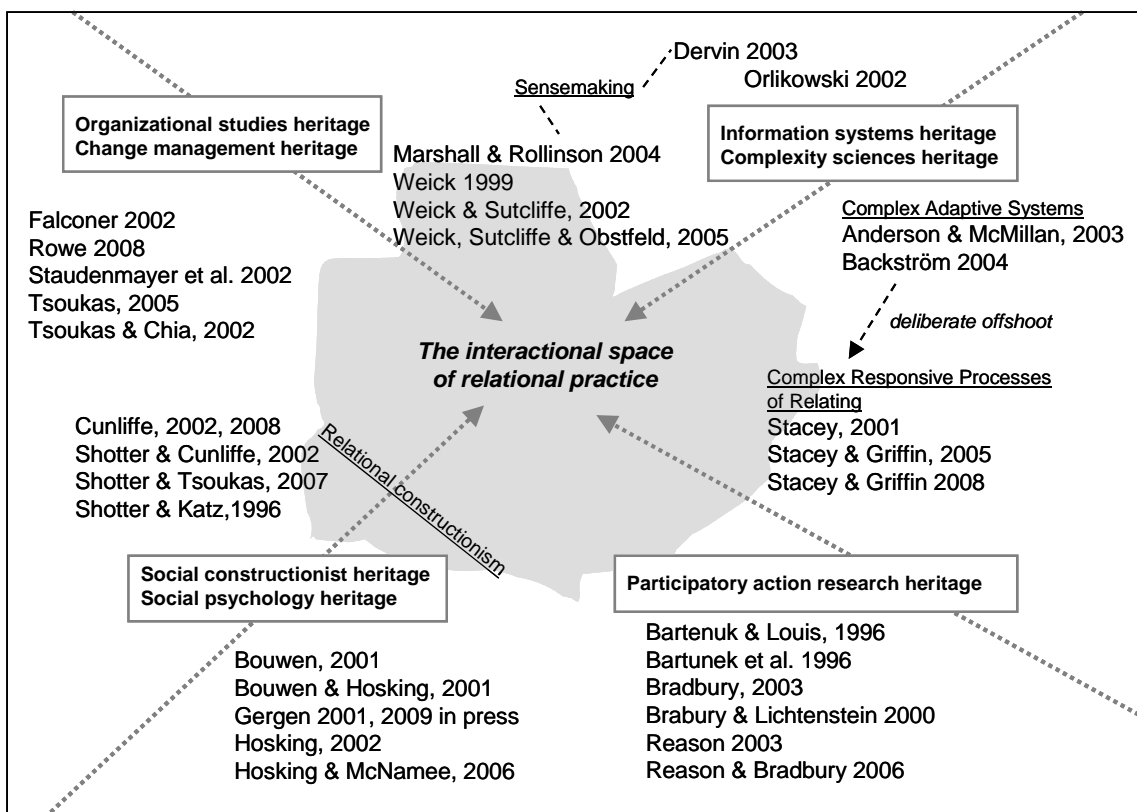
Figure 3 depicts various researcher communities showing increased relational alignment and collaboration through more interdisciplinary approaches. First, organisational studies and change management scholars are challenging conventional paradigms of 'managed' and 'linear' organisational change and looking across to complexity science concepts for explanatory value (Falconer 2002; Tsoukas 2005; Tsoukas & Chia 2002). Second, social constructionists have carved out an area they call 'relational constructionism' that extends beyond traditional applicability in psychology, social work and family therapy disciplines, into business disciplines and organised workplaces (Cunliffe 2008; Hosking & McNamee 2006; Shotter & Tsoukas 2007).

Third, the analogy of organisations as living systems that adapt to changing environmental influences has generated an enthusiastic 'borrowing' of complexity principles to create a new 'business of complexity'. This development is known as *complex adaptive systems* (Gell-Mann 1994; Holland 1995; Kauffman 1995) and researchers such as Anderson and McMillan (2003) and Backström (2004) represent this community in continuing to theorise how organisations adapt by applying evolutionary change principles from the biological sciences. In 2000, a splinter group (depicted as a separate community and deliberate offshoot in Figure 3) was created by researchers at the University of Hertfordshire (Stacey 2001; Stacey et al. 2000). They challenged the use of certain complexity assumptions in complex adaptive systems as characteristic of what they call *systemic* self-organisation rather than *participative* self-organisation (Griffin 2002: chapter 1).

Stacey and colleagues believe systemic views still privilege the coherence of a system which is 'hopelessly ideal and absolute' (Griffin 2002: 191) and this systems thinking orientation causes us to think of ourselves as 'victims of systems' (Griffin 2002: 1). Therefore they would classify even complex adaptive system learning literature as belonging more to my definition of Domain 2 research. Rather, Stacey et al.'s preference is to focus on the interactions among actors in the lived present. They have therefore coined the term *complex responsive processes of relating* to differentiate their body of research from the

ongoing developments in complex adaptive systems. Their work in progress encompasses a broad vision to researching complexity in organisations. Stacey directs the Complexity and Management Centre that oversees academic completions (Master of Arts, Doctor of Management and Doctor of Philosophy), consulting engagements and a growing list of publications (Griffin 2002; Shaw & Stacey 2006; Stacey 2001; Stacey & Griffin 2005; 2008a; Stacey et al. 2000) in the business of complexity.

Fourth, methodology and methods research is also aligning more relationally. The foundational orientation of action research using learning sets and facilitators (Revans 1980; 1983) continues to move towards new instantiations of participatory action research, cooperative inquiry and insider/outside research methods (Bartunek & Louis 1996; Bartunek et al. 1996; Carr & Kemmis 1986; 2005; Reason 2003; Reason & Bradbury 2006a). This gives rise to the need for 'a palette of methodological choices' to investigate relational concerns in organisations (Bradbury & Lichtenstein 2000: 551) and the recognition of the co-evolving, co-experiencing role of the researcher who is not merely implicated, but *interactively committed* during research investigations.

Finally, I regard the sensemaking literature that Weick, solely and with colleagues, has developed over several decades of research, as a philosophical and directional trend toward a Domain 3 view of collective learning (Weick 1983; 1995; 2001; Weick et al. 2005). Weick et al.'s recent work (2005) does not directly use the vocabulary of complexity science in the same way as Stacey and Griffin (2008a) or Shotter and Tsoukas (2007) have embraced. But they raise 'complexivist sensibilities' (Davis & Sumara 2006) in discussing collective sensemaking as 'distributed', about 'plausibility' in the moment, about small moments that do not equate to insignificance and may have large consequences and the importance of 'talking' situations into existence (Weick et al. 2005: 419).

What Weick et al. (2005) suggest is that sensemaking is a collective, fast-flowing, attentional and provisional process that is full of constraints and fully-laden with politics in dialogue and action:

> To deal with ambiguity, interdependent people, search for meaning, settle for plausibility, and move on … scholars stretch those moments, scrutinize them, and name them in the belief that they affect how action gets routinized, flux gets tamed, objects get enacted and precedents get set.

> The concept of action suggests that it is more important to keep going than pause, because the flow of experience in which action is embedded does not pause; and the concept of retrospect suggests the so-called stimuli for action such as diagnoses, plans for implementation and strategies are as much products of action as they are prods for action.

> Taken together, these properties suggest that increased skill at sensemaking should occur when people are socialized to make do, treat constraints as self-imposed, strive for plausibility, keep showing up, use retrospect to get a sense of direction, and articulate descriptions that energize. These are micro-level actions. They are small actions, but they are small actions that have large consequences (Weick et al. 2005: 419).

If we accept the fleeting character of the lived experience as suggested by the above-quoted passage, what then instigates a Domain 3 view of collective sensemaking and learning and is helpful methodologically to researchers conducting empirical investigations?

In my review to generate Figure 3, I found few empirical studies on relational practice and even fewer that provided descriptions of method. Bradbury and Lichtenstein (2000) provide a useful framework and matrix of relationality methods but did not populate them with empirical studies. Empirical discussions to varying degrees of specificity are found in relationally-oriented research conducted in healthcare (Darren 2005; Weick et al. 2005), education (Davis & Sumara 2006; Forsyth 2008), information and library services (Dervin 1999; Dervin & Foreman-Wernet 2003; Pité 2005), high-technology, services, aid agencies and public sector health agencies (Stacey & Griffin 2005; 2008a) and consulting services and symphony orchestras (Hosking & McNamee 2006; Maitlis 1998). I interpret this paucity of literature as representing the nascent and early stage of research investigations in this interactional space. As Klein (2004)

identified, relevancy is dominantly grounded in disciplinary concerns and challenges exist in reaching out to the spaces beyond that do not fit neatly into recognisable paradigms or within clearly-defined boundaries.

Nevertheless, Weick et al. (2005: 414) provide some indicative direction in suggesting that 'sensemaking is activated by the question, "same or different?" ' where 'different' may be understood as discontinuities of various kinds, for example, breakdowns (Patriotta 2003), disconfirmations (Weick & Sutcliffe 2001) or innovations (Dougherty et al. 2000). The methodological difficulty of catching people 'in discontinuity' may be somewhat ameliorated by looking for situations where groups experience crises, turnaround situations, new modes of business operations, or the development of new product or service innovations. Even the mundaneness of everyday action may provide what Weick et al. (2005: 415) suggest is an 'equivocality of time' and 'equivocality of action' where there may be 'too many meanings or too few' that require unpacking and therefore provide opportunities for empirical investigation.

Further empirical studies are needed that test the contributions and gaps of conventional methodologies that illuminate experience (e.g. case study methods) for relationally-oriented research. My investigation researches 'same and different' in this Domain 3 sense by examining the interactions of corrections staff who needed to work interprofessionally and collectively to make a radical new program for offender rehabilitation work. My two other case studies of orchestral musicians and chefs investigate 'same and different' by juxtaposing experts and novices, mentors and protégés together in professional and vocational practice as opportunities to make and remake practice as 'living curricula' (Bath et al. 2004). By discussing this portfolio of case studies, my investigation is intended to contribute to the existing gaps in empirical evidence and to the growth of conceptual and empirical understandings of a Domain 3 relational view to collective learning. I conclude this review of Domain 3 literature by next summarising its benefits and limitations.

Benefits and limitations of a Domain 3 ecological-relational view

The ecological-relational positioning of Domain 3 literature recognises the heterogeneity that provides the interest, diversity and uniqueness that characterises humans and their reasoned choices for actions in the world. Yet simultaneously and non-paradoxically, it also claims that humankind is of this world, adapting and evolving in coordination with other phenomena, human and material, and exhibiting similarities in its animal nature. In linking theories of nature to theories of time, researchers who support a Domain 3 view of learning, argue for valuing the relational lived experience of the present. This view challenges the mechanistic determinism of a Domain 1 view that allows generalisation, or the situated interest of a Domain 2 view that is highly particularised to a given system.

What Domain 3 offers through the philosophical contributions of Bakhtin (Bakhtin 1981; Emerson 1997; Holquist 1990) and Mead (1932/1959) as discussed earlier in Section 2.4, is the recognition that human interaction goes beyond a simple dyadic form of communication. Human interaction generates complex patterns of social acts. People come to each interaction continually revising their experiential-based histories of social acts; they apply local inferences based on direct interactions and global inferences based on taking the attitudes of 'the generalised other' (Mead, cited in Stacey & Griffin 2008a: 8). Generalisations that have global implications (e.g. my company's cultural values and strategic goals, my personal ethical values, good practices for my profession) unfold only in the particularisation of interactions among people in the lived present.

From this perspective, collective learning cannot be reduced to project outcomes, the passage of group events, or memories of a great teamwork experience. Learning is only earned through axiological commitments and engagements in the moment and made visible through relational and responsive acting, talking and judging. Learning is therefore fragile and vulnerable to ongoing reconstruction and revision. It can also generate moments of connections among people that are

meaningful and significant in unexplainable ways and has the potential to transcend projects, organisations and even generations (e.g. events and epiphanies that make a difference, the specialness of being mentored).

The challenge for living within a Domain 3 view of learning is in its resistance to being 'engineered' or designed. Modernist contemporary organisations (I was part of several during my twenty plus years of corporate life) often want quick fixes and easy solutions. Academics, consultants or enlightened practitioner-managers arguing for more pluralism in a postmodern society are unlikely to be successful (Hassard & Parker 1993). What a Domain 3 view of learning espouses is the meaningfulness of learning that unfolds and arises from interactive experiences. It requires less managed interventions, more inquiry-based approaches and notions of shared reflexivity as useful mechanisms in their own right, not as an instrumental means to achieve outcomes. It requires a new vocabulary for collective competence (Boreham 2004), a form of 'pragmatic pluralism' (Taket & White 2005) or perhaps 'a new modernist perspective' (Woods & Joyce 2002) that must be grounded from 'inside' daily organisational work, not a learning program set outside the context of work.

For researchers, it also requires more relational, participative and inquiry-based methodologies that are based on the positive benefits of scholarship inside the organisation (Bradbury & Lichtenstein 2000; Bradbury & Mainemelis 2001; Cameron et al. 2003; Spreitzer et al. 2005). The conceptual and methodological tools already exist in fragments within several disciplines as indicated by Figure 3. The practical and paradigmatic challenge is to expand the interdisciplinary spaces where they can co-evolve more robustly through sharing perspectives of interdisciplinary experiences.

2.5   Toward a generative theory of collective learning

The previous four sections have introduced my organising framework and discussed, in sequence, learning literature that I categorise as Domains 1, 2 and 3.

Research located in each of these domains hold different analytic assumptions and as a result, they have focused on different units of analysis in theorising collective learning. Table 4 below summarises these differences and implications.

Table 4
Summarising the differences across Domains 1, 2 and 3

Domain	Analytic Assumption	Implication for collective learning
1	What groups are: - objects - structures - outcomes	• Collective learning means acquiring and transferring knowledge and skills among collectivities or structures of individuals to improve and benefit organisational outcomes. • Learning is an instrumental means towards organising the ends of collectivities.
2	What groups do and experience: - activities/processes - community/identity - situated context	• Collective learning requires designing and linking various systems components to foster their optimal fit within the context of the organisation or system of interest. • Learning can be facilitated to improve the cohesiveness and operation of the system of interest.
3	How groups experience relationally: - interactions - engagement - modes of co-adapting	• Collective learning involves a dynamic ecology of encountering difference through which collectivities inquire together and develop emergently. Patterns of stability and instability indicate provisional modes of alignment that can benefit systems of interest in an ongoing process of adaptation. • Learning emerges in unbounded and indeterminate ways.

As I have described it, Domain 1 illustrates a 'first order' of collective learning theory and practice, historically developed to support a scientific orientation to understandings of the post-industrial modern organisation and the nature of work

that became increasingly dependent on the quality of human action. Domain 2 illustrates a 'second order' of collective learning theory and practice, that emerged dominantly during the 1990s in response to the problematic representational characterisation of human action in Domain 1 and in the search for learning typologies that were grounded in assumptions of the world as interpreted social reality. The current and mostly twenty-first century literature identified as Domain 3 illustrates a 'third order' of collective learning theory and practice that I characterise as emerging from contradictions and similarities between Domains 1 and 2.

Domain 3 literature differs from Domain 1 and Domain 2 in its lack of fidelity to disciplinary unity; instead, it embraces hybridity in terms of opening up possibilities by seeking explanatory value from multiple disciplinary fields. For example, bringing in an awareness of complexity principles (e.g. concepts of self-organising and emergence) from the biological sciences to the fields of organisational studies and workplace learning recognises that complex concepts are needed to explain complex phenomena: phenomena that cannot be simplified to their constituent parts, disciplinary heritage or causal drivers. Further, the relational-responsive character of Domain 3 literature values interactions among actors in the moment as a basis for commitments to move forward. The organisational concerns of interest (e.g. performance, effectiveness, quality, competitive advantage) may be contributing instrumental drivers but other effects, not bounded by the interests of one organisation, may also be 'at play' (e.g. stewardship of professional practice, developmental value of collective reflection and inquiry, identity-making and subjectivities or notions of citizenship).

The possibilities of examining the 'spaces between' leads to a generative theory of learning, one that recognises the dynamics of learning as shifting patterns of behaviour. This mode of learning achieves specifiable end-points practically chosen to address the problems and needs of particular contexts, yet it recognises these achievements as provisional within the broader journey of experience. It requires engagement that is continually re-committed and negotiated as actors

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encounter changes that exhibit different degrees of stability and flexibility (Thelen 2005; Thelen & Smith 1994). The value of this ecological approach to learning is that a poietics of practice is created and developed that builds resourceful communities (Katz & Shotter 1999). Practice is inherently collective and participative in embodied ways that integrate physical, cognitive, discursive, axiological and aesthetic qualities in moving forward. Accountability and engagement drives from self in connection and response to others and this poetic engagement offers a Heideggerian mode of 'bringing forth', of revealing and coming into presence (Heidegger 1977) that is never closed or final.

In refuting art as a representational practice, Bolt (2004: 59) observes, 'for Heidegger … art does not take the world simply as a means, as something to be used. Art proliferates possibilities rather than reducing them'. This requires experiential relational interactions between the artist (through the medium of the artwork) with the audience. As Thom (2007: xvi) observes in discussing music interpretation, 'interpretation is not just interpretation-of and interpretation-by but also interpretation-for'. The interactional act with others is a poietic opportunity to create, to generate the practice anew, recognising the experiences of the past and the potential of anticipated futures in the present.

Later in the findings chapters of this thesis, I discuss how the artistry of embodied interactions generated within an orchestra, kitchen and corrections centre provides examples of relational practice that demonstrate collective learning. In my case studies, the musicians, chefs and corrections staff are members of their professional practices, they have jobs and roles, they possess skills and knowledge that are evidence of their profession and discipline. As such, they 'represent' a *Domain 1* view of learning. They also perform activities as part of their work, they must fit within the operational and cultural parameters of the organisations where they work to remain effective members of their communities, they must perform the specific requirements that require local action whether it is to play a Dvořák Symphony, make crème brûlée or to design an offender leave pass system. As such, they 'construct' a *Domain 2* view of learning.

But in accommodating Domain 1 objects and Domain 2 activities and experiences, these musicians, chefs and corrections staff must continually turn 'circumstances … into a springboard for action' (Weick et al. 2005: 409). To do so, they look for cues as to what deserves attention and relevance from their current circumstances (e.g. modelling other musicians, the notations indicated on the musical score). Conceptually and practically, they make sense simultaneously in distributed ways as individuals as well as in integrated ways as a collective (Orlikowski 2002; Weick et al. 2005). This form of sensemaking is embodied, emergent, improvised and provisional; it requires actors to contextualise from local and more global circumstances, but their learning cannot be bounded to 'fit' local and organisational requirements, or be causally determined from any individual pasts or collective pasts. Actors adopting a *Domain 3* view of learning may choose to teleologically address the various constraints that are operative in their dominant system of interest. However, the distinctive character of this mode of learning addresses more generative forms of collective learning; learning that opens up forms of inquiry that commit and implicate actors in unanticipated developmental ways. In effect, a Domain 3 view of learning recognises the vulnerability, dependence and the wisdom of the many (Surowiecki 2004).

2.6 Summary: Theorising/practising how groups learn at work

This chapter has reviewed and justified my rationale for categorising learning-at-work literature into three separate yet related domains. Much like the solitary blind man who only has the physical tools to touch parts of the elephant like its tail or trunk, Domain 1 researchers have chosen to isolate the material or abstract objects in the world and examine their causal links as the basis for explaining collective learning. Alternatively, Domain 2 researchers have the benefit of different insights from a community. Like the three blind men, they socially construct using the various parts of the elephant system to explain how the phenomenon of an elephant should and does 'fit' together. This is the basis that Domain 2 researchers have for explaining collective learning: they sensitise us to

the value of various contextual factors that must be accommodated and the need for components, although differentiable, to be understood in a holistic way to fully comprehend the phenomenon of collective learning.

Domain 3 researchers also value community and social construction but go further. They continually (re)construct experiences together using the responses of others as well as the materiality of the world to learn collectively. This mode of learning is relationally responsive; it requires commitments to re-engage through interactions with others. Like the three blind men who experience the elephant trek together, their shared experience not only informs them about the object called an elephant and its fit within the class of mammals or the biological system. The experience, *because it emerges from direct participation in the moment*, also imbues the actions, talk and decisions of their collective experience in the world with significance, salience and meaning. Such meanings have individual and collective effects beyond any recall of having experienced an enjoyable elephant trek. They impact us in developmental and irrevocable ways that re-weave personal and collective histories. They teach us what it means to have a common stake in a shared human world (Daloz et al 1996).

My investigation aligns with a Domain 3 view of relational learning and aims to examine the embodied interactions of actors working together and how they experientially contextualise their circumstances to learn work and to learn together. The next chapter, Chapter Three, identifies the triangulated case study methodological approach I planned, and the co-participatory research action approach that emerged, from investigating how groups learn relationally. Subsequent chapters provide discussion of findings that this investigation generated.

Chapter Three
Qualitative Research Practices that Investigate How Groups Learn

Purpose and flow of this chapter

In the previous chapter, Chapter Two, I discussed where my relational orientation to collective learning is situated within the learning research literature. This chapter, Chapter Three, is concerned with the epistemological assumptions and methodological underpinnings guiding the research investigation and the choices I made for fieldwork design, methods and analysis.

Crotty (1998: 9) suggests that human research inquiry should be guided by traditions that articulate the epistemology and theoretical perspective to ground and inform the methodology and methods used in research. For my research investigation into collective learning, my research practices were guided by epistemological assumptions in the qualitative research tradition. In Section 3.1, I discuss how humans understand and *interpret* their lives by *experiencing*, *constructing* and *communicating* how they live and determining what is meaningful to them in life and work. My study pays particular attention to how actors construct meanings relationally, as they *make sense* of actions and responses that influence inter- and multi-subjectively in reciprocal ways and that *emerge* from actor interactions with local contexts and the broader social world.

Framed by these epistemological assumptions, in Section 3.2, I characterise my research design as a qualitative study using triangulated data methods that encompasses three case studies of groups in interaction at work. I explain the issues I examined in targeting my research sites and selecting interactional sociolinguistics as an appropriate discourse analytic for analysing group talk. In Section 3.3, I explain how I delivered my research design using the multiple data collection methods of case study interviews (Stake 1995, 2000), small group and focus group interviews (Kitzinger & Barbour 1999; Morgan 1997), field

observations and review of organisational documents (Denzin & Lincoln 2000). I discuss the ethical considerations and implications of researching human participants who continue to work from within their existing jobs and workplaces. I then discuss my data analysis process. I describe how I analysed each case using my various sources of research data and then searched for similarities and differences across the three cases. I also discuss how I wrote up the qualitative research (Wolcott 2001) in two ways: 1) as shown in the findings chapters, Chapters Four through Seven, to this investigation, and 2) as a written report provided to each participating organisation.

Some of my research practices were identified initially and endured throughout my investigation, for example the use of case study methods (Silverman 2001; 2004; Yin 2003) to investigate participant experiences. Others were discovered and adapted progressively as a form of participatory action research (Kemmis 2007; Reason & Bradbury 2006a) or insider/outsider research (Bartunek et al. 1996; Bartunek & Louis 1996). In Section 3.4, I discuss how my planned research design was influenced and enriched by a progressive reflexive awareness of how I was learning through my interactions with participants across the research sites. I believed I also influenced the understandings of my participants through discursive relations mediated by various written texts that I co-authored about learning in their organisations. In Section 3.5, I reflect on the consequences of re-viewing my research interactions as dynamically working *with* my participants rather than researching *about* them. I reflect how my re-view influenced the way I collected data and the way I authored the findings text provided back to the organisation. I draw implications from my reflections for the phenomenon I am studying: relational responsive ways of joint working.

I conclude this chapter with Section 3.6 by summarising how my planned and discovered research practices affected my understandings of the relationship between researcher and the researched and for conducting research that emerges from joint collaborations.

3.1 Epistemological assumptions underlying the interpretive tradition

In qualitative human inquiry in the interpretive tradition, researchers investigate how research participants generate *meaning* or *understand* abstract concepts such as learning together. The meaning and the meaningfulness of concepts is *interpreted* as relevance for themselves: 'understanding is always interpretation, and … interpretation is the explicit form of understanding [with] the medium of language as the structural moment of interpretation' (Bleicher 1982: 75-76; Gadamer 1989: 307). Understandings are interpreted by participants as they are:

a) experienced
b) constructed, and
c) communicated in the world, allowing participants to
d) make sense of actions and responses, that
e) emerge as they live and work their daily lives.

Each of these features has epistemological assumptions that are discussed in this section.

Understanding that is experienced

First, in understanding meaning as *experienced*, contemporary researchers such as Van Maanen (1979; 1998), van Manen (1990) and Moustakas (1994) suggest that interpretive research is phenomenological. It asks 'what is the meaning, structure and essence of the lived experience of [a] phenomenon for [a particular] person or group of people?' (Patton 2002: 202). The shared understanding that develops from people's lived experiences in the context of particular situations, builds upon early philosophical writings particularly by Husserl (1931/1988), Heidegger (1927/1962) and Schütz (1967).

Husserl (1931/1988) identified the significance of actors experiencing intersubjectively with others (the concept of intersubjective reality is more contemporarily explored by Shotter & Cunliffe 2002). Heidegger (1927/1962) developed the notion of *Dasein* as being in the world that is shaped by what happens and what occurred before, hence noting the significance of the

temporality and trajectory of experience. Schütz (1967) theorised a theory of action and structure about the social life-world in which actors actively participate, providing a linkage between interpretation and action. Garfinkel (1967) led more sociologically-based work that suggested that life is a practical accomplishment that is continually interpreted and experienced in holistic ways. Thus, people experience life as they live it and as they interpret how they live.

Unlike positivistic traditions, theories of understanding in the interpretive tradition are not theories of generalisation; rather they explain local phenomena. Glesne and Peshkin (1992: 7) explain the emphasis of qualitative inquiry as:

- Focused on contextualisation rather than generalisability.

- A mode of interpretation rather than prediction.

- Occurring in natural settings rather than in experimental and controlled settings.

- Featuring personal involvement and partiality rather than detachment and impartiality.

- Invoking an empathetic understanding rather than objective portrayal [of the researched].

Such characterisations position the researcher in qualitative research investigations as an interpreter of participant understandings, behaviours and actions 'through the eyes' of participants' lived experiences. Moustakas discusses the researcher *being-in* and immersed in the participants' world, *being-for* by representing authentic participant views and *being-with* as in committing to joint sharing and enterprise (Moustakas, cited in Patton 2002: 8, italics added). In recognising qualitative inquiry as a process where a relationship is developed between the researcher and researched, researchers must be cognisant that they are fallible to interpretive biases and omissions (Lee 1991) and remain sensitive to and interrogate the authenticity of subjective views (Garrick 1999).

Understanding that is constructed

Second, the view that humans also *construct* meanings as they engage with the world represents a historical epistemological stance of constructionism in contrast to rival epistemologies of objectivism and subjectivism (Patton 2002). Objectivism assumes that objects in the world hold intrinsic meaning independent of human awareness. Human interactions with objects discover the meaning that is objectively inherent. Alternatively, subjectivism assumes that only the subject imposes and creates meaning on the object and the objects themselves are meaningless. In a constructed world, humans *create* meaning through the interplay with objects in the world – both are 'partners in the generation of meaning and [are to be] taken seriously' (Crotty 1998: 44).

Constructionism derives from various influential foundations of philosophical thought (Weinberg 2007) such as Hegel's philosophy discussing the dialectical influences between actors and their world and the value of reasoning through contradictions and disruptions to make human progress (Weinberg 2007: 23). Marx suggested that rather than Hegel's reason or consciousness, social beings drive to control modes of material production, introducing a critical and political character to the sociology of knowledge (Fraser 1998; Kedourie 1995). These philosophies were further elaborated by Mannheim (1952) as social constructivism and Berger and Luckmann (1966) as social reality.

Berger and Luckmann's (1966) view of social reality argues that constructed meanings operate within social, public and historical contexts that immerse actors, and are not separate from actors. Rather than individualistic construction, we inherit and operate within a world full of symbols, cultural protocols and social practices understandable through socially-situated actions. For Berger and Luckmann (1966), knowledge is socially constructed by actors as they interpret the meanings of events and activities as ways of (re)producing the social world. Such epistemological assumptions have shaped contemporary theories of learning, notably the social learning theory (Bandura 1977), situated learning theory

(Brown & Duguid 1991; Lave & Wenger 1991; Wenger 1998), sociocultural and sociohistorical learning theory (Boreham & Morgan 2004; Brown et al. 1989; Cook & Yanow 1993; Engeström et al. 1999) and other contemporary extensions (e.g. Brown & Duguid 2001; Elkjaer 2003; Gherardi et al. 1998).

Relational constructionism (or described as 'relationally responsive social constructionism' by Cunliffe 2008: 123) is a derivative of social constructionism that has particularly informed my investigation. Here, meanings are constructed in the social world from the interactions and relational processes that actors have with each other in the lived world, rather than determined from entitative properties of actors or groups (e.g. cognitive or communication skills of speakers). In a relationally constructed social world, intersubjective realities are constructed, with meanings emerging from interactions and dialogue (e.g. Bakhtin's 'living conversations') among actors and from the 'substantiality' of their shared surroundings and local situations (Cunliffe 2008: 126, 129-130).

Relational constructionist scholars such as Gergen (1994; 1999; 2001), Hosking and colleagues (Bouwen & Hosking 2000; Hosking et al. 1995; Hosking & McNamee 2006; Ramsey 2005) and Shotter and Cunliffe (Cunliffe 2008; Shotter 1993; 1996; 2008) originate from social psychology and sociology backgrounds with their recent work finding transdisciplinary alignment with similar work from contemporary organisational studies and learning scholars (Griffiths & Guile 2003; Shotter & Tsoukas 2007). Research practices following a relational constructionist orientation, such as my investigation, pay close attention to how context, actions and discourse contribute to and communicate shared understandings.

Understanding that can be communicated

Thirdly, understanding that is experienced and constructed is also *communicated* in various ways. Participants not only want to understand what *is* in the world (Gadamer 1989) but also what it *could be* or to change it or adjust to reciprocal views (Carr & Kemmis 1986; Heron & Reason 2006). Symbolic interactionists

such as Mead, Blumer and Durkheim (Bleicher 1982; Blumer 1969; Mead 1934/1962) argue that social reality is experienced and constructed through symbols such as language, written texts and artefacts. Artefacts mediate the ways that actors interact with each other to communicate understanding. Such views have influenced the use of activity theory founded by Russian psychologists Vygotsky, Leont'ev and Luria for conceptualising learning at work (Engeström 2001a; 2004b; Engeström & Middleton 1996; Engeström et al. 1999) and the use of actor-network theory to understand work practice (Latour 1993; Law & Hassard 1999; Law et al. 1986).

For my investigation, formal talk (as in business meetings or in receiving instructions), informal talk (e.g. over coffee, in office aisleways, in transit), non-verbal gestures, body movements, forms of listening and peripheral vision are all examples of how actors communicate meanings to others in everyday work life. In Habermas' theory of communicative action, he identifies 'the use of language as a medium for a kind of reaching understanding in the course of which participants, through relating to the world, reciprocally raise validity claims that be can accepted or rejected' (Habermas 1981/1987: 99). Here, language-in-use goes beyond instrumental communications meanings, as in communications research (Lindlof & Taylor 2002); for example 'did you receive that memo?'. Language can symbolically carry cultural knowledge, for example 'I come from a family of musicians'. It can also become the means by which people form their identities (Habermas 1981/1987: 140), for example, 'I have been studying the flute for only three years'.

Wittgenstein (1968: para23) introduced the term *language game* to describe the complexity and multiplicity with which language is not only a linguistic means of communication but becomes a shared form of life. Language is often structured to be relational: that is, it typically prompts a response or reaction, such as the answer to a question. Language games can be learned and understood differently. For example the command 'make me mayonnaise' from a chef to a fourth-year apprentice chef in the work setting implies a learned response seen as a series of

action steps involving known ratios of egg yolks and oil and the activity of whisking. The same command to a first-year apprentice chef needs to be supported by further details that break down the needed work into process steps that can be understood by a novice who does not yet have that understanding and therefore cannot act-in-use.

Communicating understanding among actors thus relies frequently on language as a constructor for/of multiple purposes. My investigation includes relating through talk as a constituent strand that contributes to collective learning. However, as Gumperz (1999: 458) noted, talk is never precise enough so that listeners must 'fill in for what is left unsaid'. Speakers and listeners use a variety of non-verbal gestures and cues, in addition to talk, to signal their understandings, motivations, inferences and actions. In my investigation, these types of communication are captured through researcher observations and field notes during data collection, as explained later in Section 3.3 of this chapter.

Understanding that is sensemaking to drive action

The fourth feature of understanding in qualitative research is that of *sensemaking*. Sensemaking is a concept that has been applied across several contexts including business (Glanz et al. 2001; Hopkinson 2001), organisational studies (Weick 1995; 2001; Weick et al. 2005), information, library and computational fields (Dervin & Foreman-Wernet 2003; Uren et al. 2006) and nonprofit sectors (Liao-Troth & Dunn 1999). For Weick et al. (2005: 409), sensemaking characterises how human participants turn 'circumstances into a situation that is comprehended explicitly [so they can serve] as a springboard into action'. So sensemaking reinforces the importance of communicating as previously discussed, but further identifies the linkage between *interpreting* something and then *acting* upon it; that is, using interpretation as the basis of judgement for action.

For researching groups at work in organisations, the concept of sensemaking provides the practical rationale for why participants strive to understand and interpret what is relevant in their work environment and why the collective

resources of many individuals might be needed to order and organise the issues that require appropriate attentional resources (Ocasio 1997). In organised settings, 'sensemaking is not about truth and getting it right. [Instead] it is driven by plausibility rather than accuracy' (Weick et al. 2005 and Weick 1995, cited in Weick et al. 2005: 415). At work, groups must apply practical, heuristic and revisable ways and 'whatever it takes' (McCall & Kaplan 1990) to make work 'work'. Groups at work strive to generate shared understandings in the context of jobs, activities and outcomes that must be completed within continuing personal and organisational constraints.

Weick has been researching sensemaking in organisations for several decades (1977, 1983, 1995, 2001; Weick et al. 2005). His particularly influential research study into the collective actions of fire-fighters in the Mann Gulch disaster (Weick 1983) suggests that the process of sensemaking requires heedful interrelating that emerges from joint action in the moment (Weick & Roberts 1993) and a recognition that sensemaking is retrospective (Weick 1995; Weick et al. 2005): that is, people make sense of something after it has happened. So although people make their best heuristic attempts at deciding upon a course of action by inferring future anticipated actions (Beckett 2001, 2002), understandings about a critical event, a mistake or actions taken collectively, come into being as an aftermath of activity (Weick et al. 2005: 412). Therefore, shared understandings about actions taken during critical and non-critical activities of work lives can be productive sources of group reflection (Boud et al. 2006) that can be incorporated into research design.

Understanding as an emergent phenomenon

The fifth and final epistemological feature I discuss about researching human understanding is that of *emergence*. Qualitative research investigates participants in their natural settings, rather than through controlled experimental settings, as a form of naturalistic inquiry (Lincoln & Guba 1985). Therefore, researchers must be open to findings that emerge unconstrained from those settings.

Contemporary research into the benefits of complexity theory concepts for organisational research (Axelrod & Cohen 1999; Davis & Sumara 2006; Shaw & Stacey 2006) rely on core concepts of emergence and adaptation in how humans as collectives or populations learn. For example, Davis and Sumara explain that how complex emergence can happen 'on the edge': participants balance the tension between diversity (new ideas) and redundancy (status quo) and are influenced by the proximity of 'neighbour' interactions, i.e. how conflicting ideas and perspectives are offered up and reconciled in groupwork (Davis & Sumara 2006: 136, 142). Thus, a successful collectivity is not just a matter of being smarter than the smartest of its members; rather it is discovering ways for all participants to be capable of actions and interpretations that could not be achieved individually (Davis & Sumara 2006: 136).

Similarly when researching human understanding, the researcher should structure and organise research design and methodology to be as systematic as possible so that research objectives are achieved and research questions are answered. But the researcher should also recognise that linear logic and planning has limitations in human research; the process between the researcher and researched might be better characterised as jointly discovering together. The implications of my research as a discovered form of participatory action research (Reason 2003; Reason & Bradbury 2006a) in addition to my planned approach as interpretive case study research is discussed later in this chapter as activity implications in Section 3.4 and methodological reflections in Section 3.5.

3.2 Research design and selection: Triangulated case studies

The previous section framed the epistemological assumptions underlying my research study following the qualitative interpretive tradition. This section discusses the choice of triangulated case studies for the research design and the issues concerned with targeting and selecting my research sites. This is followed by discussion in Section 3.3 on the multiple data collection methods used and the data analysis performed to generate my findings.

Research design

As illustrated in Section 3.1, qualitative inquiry gives credence to the complexity of social interactions and the 'vast opportunity that the holism of practice … makes possible'; it aims to do it justice rather than attempting to simplify social phenomena (Peshkin 1988: 418). Within qualitative research, case study methodology provides ways to surface 'comprehensive, systematic and in-depth information about each case of interest' (Patton 2002: 447) because 'the purpose of case study is not to represent the world, but to represent the case … both the process of learning about the case and the product of our learning' (Stake 2000: 237, 245). This focus on particularity allows a depth and richness of 'thick description' (Ryle, cited in Geertz 1973: 6) and interpretation based on the experiences of participants, while also further situating such experiences within local contextual factors. This embeddedness of context in case study research is a significant benefit for an investigation that considers context to contribute to and be integral to collective learning.

The benefits of a case study methodology can be further improved by triangulating or using multiple methods to contribute to 'methodological rigor' (Patton 2002: 68) or 'internal validity' (Merriam 1998: 201-204). Denzin and Lincoln (2003) argue that in qualitative research,

> objective reality can never be captured … the use of multiple methods, or triangulation, is an attempt to secure an in-depth understanding of the phenomenon in question … [multiple methods and multiple] methodological practices … in a single study can best be understood … as a strategy to increase the rigor, breadth, complexity, richness and depth to any inquiry (Denzin & Lincoln 2003: 8).

Multiple qualitative methods help to identify patterns in participants' interpretation of their experiences through information derived from multiple sources of research data – patterns that may explain why groups collectively learn. For sensemaking and interpretive research such as this investigation, *multiple* qualitative methods are preferred to *mixed* methods (Tashakkori & Teddie 2003) across competing paradigms, where mixed methods incorporates a combination of qualitative and quantitative methods.

My case study methodology recognised the importance of talk-in-context and talk-in-interaction as contributing to how groups developed understandings about learning and chose to move forward. I was interested in how talk contributed to discourse practices within work groups (Sarangi & Coulthard 2000) and provided the appropriate contextualisation cues (Gumperz 1972), 'goal-oriented interpretive processes' (Gumperz 1992: 306) and interpretive frames (Goffman 1974) for groups to communicate how to work together and make joint work 'work'. In my research investigation, talk is part of broader and multiple ways that humans communicate when they work together. At work, actors use verbal talk combined with non-verbal gestures, body movements, actions and inferences and I was interested in how these interaction patterns combined in a shared work context to generate understandings of learning.

Therefore, for analysing the talk portions of my research data within this broader context, I incorporated the principles of interactional sociolinguistics (IS), a type of discourse analysis that originated from studies led by Gumperz (1972; 1982; 1992) that built on prior work by Goffman (1974; 1981) and Garfinkel (1967). IS builds from the talk-in-interaction methods of Conversation Analysis (CA) (Drew & Heritage 1992a; Ochs et al. 1996) but provides an important methodological difference needed for my research investigation. CA regards context as bounded within the micro-interaction of conversations taking place between actors. Therefore structural characteristics such as turn-taking, talk sequencing through adjacency pairs and repair of troubles in interaction are considered core building blocks within CA (Sacks et al. 1974).

In contrast, IS uses what is happening micro-interactionally within the conversation (local inferences) as well as how actors understand wider contexts of interactions (Roberts & Sarangi 2005), or global inferences, for example the purpose of the conversation, whom they are interacting with, relative work roles and power differentials. These global inferences have been characterised by Goffman (1974; 1981) as 'interpretive frames' through which actors contextualise

meanings and expectations about current situations and activities to be performed. Therefore, using IS methods to analyse the talk in my research data could help to illustrate how groups relate through talk and explain why context does integrative work in generating understandings of collective learning.

Research site targeting and selection

To summarise, my research design is a qualitative interpretive study of groups in interaction at work, triangulating from multiple data methods in the case study tradition and using interactional sociolinguistics methods for analysing group talk. Since groups work and learn in organisations, the targeting strategy I adopted (which was the same for the Informal Learning project) was to select sites that had recently experienced challenging organisational events. This challenge might have been due to new policy implementation, change of leadership, a critical incident, a failure or success of some sort or perhaps in reaching a certain milestone in its organisational history that represented an opportunity to reflect.

The rationale for this research targeting served various pragmatic purposes:

- Participants could use the vehicle of the challenging incident to describe and articulate the specifics of 'what happened' and explain their understandings of individual and group roles, motivations and interactions, rather than provide generic descriptions of their daily work or general understandings of learning.

- The presence of a challenging incident is a discontinuity in organisational action (Patriotta 2003), often surfacing assumptions and tacit ways of knowing that underlie people's accumulated experiences, making them overt and more visible to research interrogation.

- Organisations frequently see value in documenting 'lessons learned' from organised efforts against significant challenges for their own learning purposes. They therefore are more open to the value of an external research perspective in documenting these organisational activities, improving the probability of access.

As introduced in Section 1.2, from the eight case studies developed for the Informal Learning project, two had no participant interaction data (because they were based on public inquiry document analyses), one was more characteristic of individual practice (four individuals in a small business company) and two were

multi-organisational networks that reflected additional complexities more suitable for extensions to this research. The remaining three research organisations that are included in this investigation are *SymCo*, a symphony orchestra, *KitchCo*, a commercial kitchen and *CorrCo*, a corrections centre rehabilitating drug offenders. Overviews of these three organisations were introduced in Section 1.4 and additional detail is further provided in Appendix 1.

For SymCo, the rationale for participation in my investigation was the opportunity to reflect on the achievements of the program and the milestones reached for their two orchestral development programs, DEV1 (ten years) and DEV2 (five years). For KitchCo, participation could enable the experiences of all three parties (group training organisation, host employers and apprentices) involved in preparing apprentice chefs for a vocation in commercial cookery to be documented. For CorrCo, participation provided the centre director an opportunity to obtain an outsider's view of staff experiences through a series of recent critical incidents that had occurred during the rapid pace of organisational change at the centre. Across the three organisations, sponsors expressed an interest in learning more about how their learning had developed over time, analogous to Bradbury and Mainemelis' (2001) learning history approach.

For the purposes of this investigation, I needed the experiences of group interactions to occur naturally in everyday work activities where I (as researcher) could observe participant talk, judgements and actions during these experiences. Where feasible at the research sites, I sequenced the data collection to surface and then interrogate recently-experienced group interactions. For example, I observed developing and professional musicians working together 'at rehearsal'. I then interviewed them within a few hours of that experience either individually or in small groups. This created a natural group forum where I could probe through questioning to obtain participant reflections and talk on the recent shared experience. I regarded this 'shared experience' from two perspectives:

1) The shared experience participants had just experienced with their colleagues involving physical actions and body language, talk and judgements (i.e. the rehearsal).

2) The shared experience of talking together within the research interview, represented as a) dialogue between the participant and myself as researcher in individual interviews, or in some cases, as b) polylogue if more than two participants were involved in the interview, such as in small group interviews or focus group interviews. Communication here also included the use of body language, facial expressions and other non-verbal gestures.

This sequencing did not affect the research objectives of the Informal Learning project, as that project's focus was examining the presence of internal goods of practice, an issue that could be interrogated within individual interviews and/or field observations without the added requirement of group interactions.

3.3   From data collection to data analysis

The fieldwork for my investigation across the three case studies took fifteen months to complete. In addition to the ethics clearance that had been previously approved for the Informal Learning project, I obtained an ethics clearance for my research investigation that recognised that my doctoral research was embedded within the larger research project. CorrCo, being part of a larger governmental authority, required an internal ethics clearance application to be approved prior to research being conducted at their site. This additional ethics clearance approved the use of research data collected at CorrCo for both the Informal Learning project and my doctoral research for staff interactions.

Data collection methods and ethical considerations

For each participating organisation, I obtain two types of consent. The *company* consent form was signed by an authorising representative of the organisation and provided access to the research site, participants, and organisational artefacts and documents for review and understanding of the context for collective learning. The *participant* consent form was signed by each participant and signified understanding that despite the support of the organisation, individual participation was purely voluntary and could be withdrawn at any time during the research process. A separate information sheet provided further details on the purpose of the research and parameters of participation. Since my investigation was embedded within the Informal Learning project, the consent forms were designed

to recognise that research data could be used for two parallel research efforts, the Informal Learning project and my doctoral research. Copies of both consent forms, plus an information sheet provided to participants are included in Appendix 2.

My data collection approach used multiple qualitative data collection methods, including:

- Observations of groups at work, supported by written researcher field notes during the observations and more extensive notes created shortly after the observations.

- Individual interviews, using semi-structured interview questions.

- Small group interviews, using semi-structured interview questions.

- Focus group interviews, structuring discussion around work and learning themes.

- Review of organisational documents, provided by the participants or organisational representatives, or identified through desk research of public sources.

I found semi-structured questioning during individual and group interviews useful in guiding but not restricting the natural flow of discussion. Further, the nature of questioning and response-making builds a progressive understanding among participants (including myself as researcher) from beginning to end of a single interview. This enabled me to bring an enhanced understanding of the work context and activities from my early interviews to later interviews within the same case organisation. For example, as illustrated by my increased use of case workplace terminology, for example in the KitchCo case, the use of the term *mise en place* meaning preparatory steps prior to delivering meal service, first identified for me during a chef interview (interview IN2.5) that I used during discussions at the later apprentice focus group (interview IN2.9).

Table 5 on the next page summarises the methods I used and the scope of data collected at the three case study organisations. More detail on these data collection

methods, including dates and the coding conventions used for sources cited in the remainder of the thesis document is explained in Appendix 3. The transcription conventions used for all excerpts documented in this thesis are described in Appendix 4.

Table 5
Data collection methods and scope of data
collected at the three case study organisations

	SymCo	KitchCo	CorrCo
Group interaction observations	Three, consisting of: • concert rehearsal • chamber group rehearsal • chamber group concert	Two, consisting of: • lunch service • function service	Three, consisting of: • pre-community staff briefing • community meeting • programs staff integration meeting
Field observation notes	Yes	Yes	Yes
Individual interviews	10	11	7
Small group interviews	One involving two musicians	None	One involving two education officers
Focus group interviews	None	One involving four apprentice chefs	None
Review of organisational documents	Yes	Yes	Yes

During group observations, I paid close attention to the various ways participants interacted. Beyond talk and body movements, these included for example, body orientations towards speakers, decisions made to sit in particular places within meetings, facial expressions, eye movements and para-linguistic features (such as responsive laughs or sounds of (dis)agreement during conversation). To assist with data analysis, these examples of interactions were noted in field observation notes or transcribed as para-linguistic features within transcripts. In one group observation, the concert rehearsal at SymCo, I was further assisted by the presence of Barbara, my sponsor and research participant at SymCo. She provided periodic verbal commentary about what was happening in the rehearsal, the contextual issues (e.g. the repertoire being played, why the composer of one new work was present at the rehearsal) and pointed out the physical locations of developing musicians and professional musician mentors performing in the

orchestra, which heightened my scrutiny of musician interactions during the observation.

For all group observations, I obtained consent from the organisational representative, or asked for permission from the participants prior to the start of the group activity. At some venues, the acoustics did not facilitate audiotaping (for example, during the concert rehearsal at SymCo). At some venues, I taped the evidence of group interactions but did not transcribe it (for example, the kitchen activity, noise and talk of chefs during preparation for lunch service at KitchCo did not lend itself to a textual record nor the possibility of a clear transcription). At some venues, I taped evidence of group interactions and transcribed only portions of the talk that I chose to use for my analysis (for example, the excerpts used in this thesis from the programs staff integration meeting at CorrCo) after listening to the entire recording of the group interaction numerous times. To support my group observations, I documented field observations through written field notes and then wrote more comprehensive notes during self-reflection after the observations.

I personally audiotaped and transcribed all individual, small group and focus group interviews. Draft transcripts were emailed to participants for accuracy and verification. Any revisions and edits were made by either the participant directly on the file or by myself with version control (v1, v2 etc). I used coded filenames rather than participant names to ensure confidentiality.

I collected organisational documents that represented working artefacts (Suchman et al. 2003) of the groups' activities including orchestra development program descriptions and guidelines, musician surveys, menus, meeting minutes, case procedures manual and policy guidelines. In addition, I collected contextual information from secondary sources on each company and researched influencing external factors (e.g. industry and demographic trends) to enhance my researcher understanding of the contexts in which participants performed their work.

To remain sensitive to the issue that my research participants continued to work at their workplaces before, during and after my research process, any outputs I wrote for this investigation or the Informal Learning project used pseudonyms to refer to participants and generic industry descriptors to refer to the organisation. Such outputs included the case study document that was generated for the participating organisation, and academic conference papers or journal papers that were written based on the research findings. After completion of the written SymCo case study, the organisation permitted its identity to be disclosed by written consent.

Data analysis

As Stake (1995) observes, case study research is an art. This characterisation is particularly appropriate during the data analysis stage, where the volume and richness of case data collected from multiple data methods must be scrutinised and synthesised to develop research findings. As Patton (2002: 432) notes, 'the challenge in qualitative analysis lies in making sense of massive amounts of data … reducing the volume of raw data, sifting trivia from significance, identifying significant patterns and constructing a framework for communicating the essence of what the data reveal'. In addition, the research data generated from these three cases was intended to serve multiple purposes:

- Source of *judgement* data to research the presence of internal goods for the Informal Learning project.

- Source of *organisational* data to provide descriptive documentation of the learning history or critical incident for the participating organisation through the researcher-generated case study document.

- Source of *group interaction* data for my research investigation on collective learning.

The data analysis approach I adopted was a pragmatic form of data immersion, seeking initial explanatory themes or patterns, then iterating towards alternative understandings and refining researcher interpretations (Crabtree & Miller 1992). I immersed myself through multiple readings of interview transcripts and field observation notes and multiple hearings of the audiotapes. When I simultaneously read along the transcripts while listening to the original audiotapes of talk and

group interactions, I was able to recall additional verbal and non-verbal signals that were happening during group interactions that were not fully recorded in initial versions of the transcripts.

Figure 4 below provides a summary of multiple methods of analysis I conducted within each case and across the three cases. Within each case using the group interaction as the unit of analysis, I looked for examples of interactions that cued other responses, for example, talk that signalled some form of action, inferences made from talk, the inferential basis for actions observed. Using IS discourse methods identified in Section 3.2, I analysed how participants signalled local inferences to each other through their work talk with each other, or through interview talk with me.

Figure 4
Multiple data analysis methods used

Types of analysis:

1. Group interactions within each case, e.g.
   Interactions-in-talk, e.g. interactional sociolinguistics (Gumperz 1972, 1982, 1992)
   Interactions among group talk, actions and judgements (through observations)

2. Group-in-context for each case, e.g.
   Bracketing focal phenomena (Hackman 2003)
   Up one level to the organisational and cultural context within which the group works
   Down one level to individual attributes of group members

3. Cross-case analysis across the three cases, e.g.
   Pattern matching and case comparison (Eisenhardt 1989; Yin 1981)

Iterative and informed induction

• Brigade is a culinary term used to describe the work team in the kitchen. In KitchCo, the brigade that I observed was led by the executive chef and comprised both apprentice and professional chefs.

For intra-case analysis, I found Hackman's (2003) approach of bracketing focal phenomena useful:

> By bracketing, I mean including in our conceptual and empirical analyses constructs that exist one level lower, but also one level higher, than those that are the main subject of study … bracketing can (1) enrich understanding of one's focal phenomena, (2) helps one discover non-obvious forces that drive those phenomena, (3) surface unanticipated interactions that shape an outcome of special interest, and (4) inform the choice of constructs in the development of actionable theory … that provides *proximal explanatory dynamics* that may be key to understanding (Hackman 2003: 906-7, 918, my emphasis).

Coincidentally, Hackman's empirical research of groups included researching why some world famous orchestras did not play well together, whereas others that were less well-known played superbly (Allmendinger & Hackman 1995; Allmendinger et al. 1996). Hackman's analysis concluded that ensemble playing is an emergent phenomenon, 'requiring attention to factors at both higher and lower levels of analysis – [in this case] the orchestra's community at the contextual level and the behaviour of its music director at the individual level' (Hackman 2003: 906, 915). For Hackman's research, a transdisciplinary combination of sociological and psychological concepts helped to analyse the phenomenon of orchestral ensemble playing. In my investigation, I needed to bracket up to describe the contextual organisational factors for the learning incident I was documenting for each participating organisation, so this activity also helped me to understand the global inferences that shape how groups interact (Roberts & Sarangi 2005) and the conceptual and practical role that context was performing for group sensemaking.

Finally within data analysis, I looked for patterns and themes in interactions when comparing across my three cases, a similar analytical approach researchers use for case comparisons (Patton 2002; Yin 1981) and building theories from case research (Eisenhardt 1989). For example, I looked for similarities in ways of responding and whether these similarities could be explained through inter-dependency of tasks or other factors. I reviewed how participants signified what was relevant and important in their shared work context. I found that analysing any one case (each with very different group characteristics and contextual

dynamics) helped me re-look at my other cases in enhanced and different ways, an iterative process of informed induction that benefits from crossing conceptual and practical levels of analysis (Hackman 2003; Morgeson & Hofmann 1999).

3.4 Emergent research practice: Modes of co-operative inquiry and 'writing up'

In this chapter so far, I have systematically explained the guiding epistemological assumptions, my qualitative research design, the multiple data collection methods and the data analysis approach that led to the findings in my investigation. Yet in the actual unfolding of this research process, I was often aware of the differences between what I was learning from within an academic context applied to research practice, compared to how I previously understood research from a practitioner, or client (as receiver of research) perspective.

As I made sense of this changing dance of practice, I engaged in modes of co-operative inquiry, hybridising what I knew before into what I had to accomplish and what others wanted from my interactions with them. This section describes how this emergent process evolved from my perspective and how it impacted the way I worked and 'wrote up' the texts and artefacts of my interactions. In the following section, Section 3.5, I offer some methodological reflections on what happens to learning when research participants who start off as strangers become colleagues who matter.

The 'give and take' messiness of co-operative inquiry

Reason and Bradbury talk about how participative action research is a mode of democratic inquiry where participants discover and create knowledge that generates an educational imperative worthy of human aspiration (Reason & Bradbury 2006b: 10). There is a sense of knowledge in motion (Nespor 1994) being shaped and reshaped, of priorities being negotiated, of finding a solution path where personal and institutional imperatives could be accommodated and agreed upon.

The solicitation of research participants and institutional access for the Informal Learning project and my thesis has come 'at a price'. Organisations, whether commercial, not-for-profit or community, are typically focused on the pursuit of organisational goals intended to maximise stakeholder value and to achieve strategic and operational outcomes. Their desire to open up their organisation to research scrutiny is initially shaped by assumptions of value in exchange theory (Blau 1964) or interactions based on 'relationships of rational exchange' (MacIntyre 1999: 114). Such perspectives are most often expressed in terms of the phrase 'what's in it for me?', even if there are other more philanthropic or intellectual curiosity motivations to the decision to participate in research studies. I recall 'pushing' myself and others on the larger project team, to produce a professionally-written, badged, leave-behind document ('the case study document') for the research project sponsor and organisation, based on my prior practitioner expectation of what I would have scoped as a client of this type of research.

My interactions with research participants, and to a certain extent the operational focus of my thesis fieldwork activities, have been oriented towards the creation and production of each research document for the 'client'. From one perspective, the processual approach I adopted was intended to collect data (informant interviews, observations, organisational documents, secondary desk research), validate (transcript verification review by informants, verification of organisational statistics and events), create the story (writing drafts), validate (informant review of draft, joint discussions) and finalise (presenting the completed document). As a management consultant practitioner experienced at generating business analysis and organisational change documents, I understood this genre. I knew what it meant; I knew what to do; I knew how to write it.

Yet as I learned together with my participants, the search became not (only) an instrumental one to produce a high-quality research document as an artefact of our shared experience, but one that was also co-operatively searching for saliences in knowing practice (Kemmis 2004). For example, what is the professional practice

of orchestral musicians: how is it changing, how is it understood from Riva's, Ray's and Anna's individual circumstances? By collaborating on this research study where outsiders such as myself with a practitioner background and representing an academic institution, interact with professional practitioners from SymCo, it gives form and substance to Kemmis' 'communitarian view of collective capacity' that can be characterised as local, situated, embodied, public, individual and extra individual (Kemmis 2004: 412).

This collective capacity gets shaped and reshaped through interactions that cannot be anticipated or predicted in advance. Interactions have a 'rhizomic' character (Chia 1999), that is, they have a tendency to 'sprout' nodes, connections or relationships between certain individuals, changing intersubjective understandings and perspectives in a similar sense to Reason and Bradbury's process of 'consciousness-raising worthy of human aspiration' (Reason & Bradbury 2006b: 10) or Daloz et al.'s recognition that 'we all share a common stake in life that is at the core of being human' (Daloz et al. 1996: 2, 4).

'Writing up' as ways of continuing inquiry with new groups

One way that this collective capacity is built in emergent and unanticipated ways is through the shared process of 'writing up'. The case study document I produced for each participating organisation was typically thirty pages of text and exhibits. Each case first described the chronology of activities and actors involved in the challenging incident (agreed scope of the case study) using the perspectives and anonymised quotes of insiders in the organisation: an organisational story or account. But interspersed throughout the chronology and in subsequent sections, I interwove an outsider perspective, incorporating views from my own work experience, discussions with my research colleagues and desk research on literature relevant to that organisation's industry or learning focus. To a large extent, I used a learning history methods approach (Bradbury & Mainemelis 2001; Kleiner & Roth 1996; Roth & Kleiner 1998) to develop the text. Such methods complement case study and action research methods and are particularly suitable

for exploring the nexus between research and practice, and interactions between researcher and researched (Bradbury & Lichtenstein 2000: 560).

The activity of 'writing up' qualitative research (Wolcott 2001) is a research practice that has methodological and ethical implications. As researcher, I have authorial control to choose what to 'name' as relevant findings that support my interpretation of the phenomena under study. I therefore have a responsibility to ethically 'ghost write' the organisational stories of my participants (Rhodes 2000; Rhodes & Brown 2005). As Rhodes (2000) suggests, 'research is a form of textual practice with researchers [acting as] textual practitioners … [engaged in] a dialogic process where they are never neutral in their attempts to write about the lives of other people' (Rhodes 2000: 511, 513).

My non-neutrality and practitioner bias surfaced when I provided interim drafts of a particular case to the chief investigator of the Informal Learning project for review, adding the caveat: 'I have tried to make it not too academic'. In considering my reflexive sensitivity here, my experience as a management consultant and as past corporate client receiver of research reports, shaped the style of writing, the language I used, the interpretations I chose to privilege and my overall sense of what would constitute an 'acceptable' client deliverable. In some respects, my authored text aimed to demonstrate the empathy of my interpretation of the lives of orchestral musicians, apprentice chefs and interprofessional teams, while also striving to represent the 'distance' of an outsider in my simultaneous role as an educational researcher.

In representing the case study document as a form of organisational learning history ('what happened' in the style of Bradbury & Mainemelis 2001), I have re-told a version of the story from a particular perspective; it is a performance in text (Rhodes 2001). But it is also a by-product co-constructed from my lived experiences of interactions with my research participants. In doing so, I have taken an interpretation, a snapshot at a point in time, of that lived experience and textualised it. It is collectively generated in the sense that many voices contributed

to, and were featured in the snapshot. Yet through my authorial control, I have exerted personal power over the text that gets read and the messages that are privileged, raising the need to remain sensitive to the impact of such messages for participants who continue working in their workplaces.

Some texts in organisations endure long after their authors have departed from the organisation; in the modern age of electronic communications, a text document can be distributed globally in seconds and generate a scalar effect for simultaneous discussion not possible involving only human actors. On the other hand, a limitation to text as a written medium is that it is also text frozen in context. The words remain unvarying, unlike dynamics of collaboration found in human talk (Hardy et al. 2005). Yet an organisational story, in essence rather than in details, can continue to be produced and (re)produced as living practice through new conversations with other individuals and groups that the text may provoke.

The SymCo case study document delivered in January 2007 is one exemplar that generated continuing forms of inquiry:

- In 2007, the case study document was read by a Board of Director member of SymCo. Her partner, who worked for a consulting firm, then asked SymCo if he could bring a group of information technology engineers to observe and ask the musicians within the DEV2 program how they communicated with each other while performing. Those interactive experiences helped the engineers contextualise those communications practices for their own work environment and also made visible for the musicians, aspects of their own musician practice that improved the quality of their learned group performance.

- Later in 2007, conversations started between SymCo and a London-based orchestra that was similar in scope and development purpose to the DEV1 program. The case study document has been used as a vehicle to describe SymCo's program features and program philosophies and as a foundation for more structured collaborative relationships between the two companies.

- In 2008, the case study document was used as a research source for national policymakers. The chief investigator on the Informal Learning project and I were consulted to provide input on a strategic directions paper for national training pathways for orchestral musicians (Cook 2008).

- In 2009, the document is still being used as an induction resource with the new intake of musicians for the DEV2 program at SymCo.

As a researcher who ceased formal interactions with the SymCo organisation more than two years ago, my relational responsive interactions with them continue to unfold in unanticipated ways. They continue to inform my views about orchestral musician practice and the ways I continue to learn from those interactions.

3.5 Reflecting my relational voice: From strangers to colleagues who matter

The previous section identified how the methods and modes of my research practice emerged from my interactions with participants, in addition to those I explicitly planned. Before I conclude with a summary of this chapter, I provide some methodological reflections on how my interactions with research participants have helped to shape my views on the phenomenon I am studying: how people work and learn together relationally. I describe these views by reflecting upon three points in time that occurred before, during and after fieldwork.

Relational learning as relationship building with others

As a researcher, establishing and building relations is a matter of building *relationships* that start much earlier than Day One of field interviews. Organisations are typically focused on the pursuit of organisational goals intended to maximise stakeholder value and to achieve strategic and operational outcomes. As mentioned previously, the desire for an individual to provide access to an organisation for research scrutiny is usually shaped by assumptions of mutual value. In the case of SymCo at the point of initial contact, Barbara as potential research client and I started engaging in a relational process of shared validation (verifying credentials), relevance (mutual points of interest), targeting (defining scope) and negotiation (value, timing and need).

For Barbara, participating in my investigation could provide the opportunity to tap into external research thinking in the area of mentoring, an area that held strong

personal and professional interest for her. This perceived area of benefit allowed her to be open to discussing different sets of organisational activities that could be valuable to document for SymCo that also met my research objectives. For example, when her first suggestion for the scope of research did not meet the research objectives or ethics approvals for the Informal Learning project or my investigation, she was willing to consider other options rather than to close access.

Although researcher and participant can be delineated in research practice, there is no ascribing all the 'thinking' to the researcher and all the 'behaving' to the participants (Reason 2003: 205). Participative research of this kind reveals value-laden implications of acting in the world:

> Our world does not consist of separate things but of relationships which we co-author. We participate in our world, so that the 'reality' we experience is a co-creation that involves the primal givenness of the cosmos of human feeling and construing. The participative metaphor is particularly apt for action research, because as we participate in creating our world we are already embodied and breathing things *who are necessarily acting* – and this draws us to consider how to judge the *quality* of our acting (Reason & Bradbury, cited in Reason 2003: 205-6, italics in original).

It also identifies the value of a 'democratic foundation of inquiry' in which people participate together to discover and create knowledge as a process of consciousness raising that provides an educative imperative worthy of human aspiration (Reason & Bradbury 2006b: 10).

Relational learning as shared flows of give and take

During my case study fieldwork, I used semi-structured questioning to probe for participant understandings of group experiences. Often interview questions only serve as initial prompts for 'story starters' about aspects of a participant's work life and how life and work are interwoven in terms of justifications for certain actions and behaviours. Participants guide and structure the direction of their reflections in conversational sequences that are meaningful to them and authentic. They do not, nor should the researcher require them to, follow the questions strictly as per the interview guide. As researcher, I sometimes lead, but also am led through my responses to others in unanticipated ways.

The blurring between researcher and participant is a kind of blurring between outsider and insider roles. As Bartunek and Louis (1996) observe:

> Inside and outside researchers bring different perspectives vis-à-vis the research setting that may or may not be reflected in the formal roles they hold relative to the setting [Often] the outsider … is more concerned than the insider with uncovering generalizable knowledge, the insider is more concerned with the particular situation and with developing knowledge for direct practical use (Bartunek & Louis 1996: 15).

But as Boyce also observes,

> For some scholars, the experiences and perception of the researcher are subjective issues which are outside the domain of objective scholarship [but] the paradigm of the researcher shapes her/his perception of the data and their meaning and the researcher cannot be separated from the research. Being conscious of one's dominant paradigm (or perspective) is a precursor to engaging in the exercise of applying more than one perspective … [reflective of] organizational culture … and organisational symbolism (Boyce 1996: 9).

When I collaborate on a shared activity, I am affected at an interpersonal level by the actions, talk and judgments of others. As an outsider, I had certain purposes to fulfil that shaped the nature of my interactions with organisational members. I was aware of those purposes, my role and the need to execute research in a professional, systematic and ethical manner. I do not have direct experience of being an orchestral musician, apprentice chef or corrections officer. Nevertheless, as a researcher, a practitioner and a human being, I still strive to relate: to connect to some analogous event from my own life experiences. Several times during fieldwork interviews, I was aware of feeling a shared empathy with the event or experience my research participant was explaining. I remembered what it felt not to know how to do something, what it means to do more with less as a manager, how the experience felt when everything flowed smoothly with others on a joint project. During these times, I looked more directly at the participant, I used energetic hand gestures, I smiled more. I felt 'in the present with them' in relating and responding in multiple ways.

Relational learning as acts of mutual care

At the end of fieldwork for each research site, I produced a written case study document. In the previous section, Section 3.4, I discussed how I handled the ethical considerations of responsibly writing (Rhodes & Brown 2005) the report

provided to the organisation. A researcher is involved for only a small time period in the ongoing life of organisations and the people who work inside them. I remained interested in what was happening in the lives of my research participants after I finished my fieldwork with them. I asked myself: had the developing musicians I interviewed at SymCo obtained jobs in professional orchestras or ventured overseas to seek professional careers? Had Jack, the recently-graduated apprentice chef, taken that lucrative job offer with the mining company in the Australian outback or remained in his home city to take the opportunity with the international hotel? More than one year after completion of the SymCo case study, I chatted with Barbara on the phone and she asked after the status of my doctoral research. She was genuinely delighted when I told her that a conference paper that discussed the SymCo case had been published and recognised (Barbara 2008, pers. comm., 21 January). Nearly a year later celebrating another year of DEV1 and DEV2 achievements, she reflected how the case study document still represents the 'spirit of our educational aspirations and practices even as our program features evolve and change in detail' (Barbara 2008, pers. comm., 11 December).

Reason and colleagues observe that in participatory research, researchers and participants mutually influence and change each other (Heron & Reason 2006; Reason 2003; Reason & Bradbury 2006b). In researching particular incidents within SymCo, KitchCo and CorrCo, I have changed my participants and they have changed me. They are not only my research participants to whom I owe a debt of gratitude for their generosity of time and insight. They are no longer strangers but colleagues who matter.

Having provided these methodological reflections and discussed how they affected my research practice, I conclude this methodology and methods chapter by summarising my approach to researching the practice of how groups learn and researching qualitative research practice.

3.6   Summary: Researching group learning practices

This chapter has discussed the methodology and methods used to investigate groups in interaction at work. Following the qualitative interpretive tradition, I selected a triangulated case study methodology using multiple data collection methods to research the learning experiences of groups within a symphony orchestra, commercial kitchen and corrections centre. My data analysis comprised an iterative form of informed induction looking for thematic similarities and differences across the three cases. It was supported by intra-case analysis bracketing up and down to understand surrounding contextual factors and used a simple interactional sociolinguistic discourse method to analyse group talk.

My experience of this investigation as an example of qualitative research practice is that the process is iterative, revisable, emergent and a form of social practice in itself (McKenzie et al. 1997). When researching practice, such as groups at work, the boundaries between researcher and researched, while possible to differentiate, tend to blur and become activities of joint collaboration that are built from foundations in human relationships. Therefore, the interpretive biases of the researcher (in my situation, my prior experience as a practitioner as well as what I chose to identify as research findings) and ethical considerations when interacting with human participants are important considerations in the design and execution of qualitative research. Despite the desire to plan human research systematically and in an organised linear fashion, human understandings are developed in unexpected, messy and intersubjective ways. They are discovered, revised, iterated and refined. They emerge together in the 'messiness of work practice' (Beckett & Hager 2002: 3) as part of the phenomenon of discovering and learning together.

I now move from these first three chapters covering introduction, literature review and research methodology to a detailed discussion of findings. The next three chapters discuss how groups *act*, *talk* and *judge* in relational ways, followed by a fourth findings chapter that discusses how groups contextualise acting, talking and judging in integrated and dynamic ways to collectively learn.

Chapter Four
Acting in Concert: How Groups Relate by Acting Together

In 'concert' from Italian *concertare*, to arrange by mutual agreement

Purpose and flow of this chapter

Doing or performing work is often regarded as important evidence of how people add value at work (Ulrich 1997). In contemporary times, more than ever it appears the old adage of 'time is money' gets interpreted as needing to 'do more with less', '(only) outcomes matter' and an obsession with the instrumental and performative aspects of work to the detriment of other dimensions that influence and enhance performance. There is something innately satisfying about acting, about 'walking the talk' and about accomplishing a task, a job or a project that creates impact within organised settings and leaves traces of human contributions. Yet the challenge of acting in concert with others, of joint action, is complex. Joint action requires coordination, alignment and commitment – not just physical movement, not just 'talking the walk' but a genuine engagement involving others to achieve purposeful and meaningful action.

The purpose of this chapter is to discuss how acting in concert with others is a relational practice that influences the nature and quality of collective learning. I specifically focus on the relational acting that occurs during transitions to work in order to interrogate the tacit and explicit assumptions of practice when relations of difference are juxtaposed in performance. In particular, one basis of difference commonly discussed in learning research is the differentiation between novices and masters, often conceptualised as a stage model of competence (Dreyfus 2001; Dreyfus & Dreyfus 1986) or the distinction between levels of peripheral versus full participation (Lave & Wenger 1991). Such conceptualisations use time and space relations to explain the progressive nature of learning, but often they suffer from the limitations of linearity (Stokes & Wyn 2007). For example, stage models assume a finite number of stages can be described or that at a specifiable stage,

learning can be complete or novices gain full participation (Dreyfus & Dreyfus 1986; Lave & Wenger 1991). This had led to views of competency or mastery as products to be acquired (the deficit view of learning) or milestones to be passed (e.g. Kellie 2002). Such outcome-oriented perceptions of performance, particularly in vocational education and training, is a view I critique along with others (Dall'Alba & Sandberg 1996, 2006; Fuller et al. 2005; Hager 2004).

Yet the value in investigating instances of novice-master interactions is that they reveal the inherent collectivity of professional practice at the 'sharp' end of practice, at the point of challenge where developmental learning is especially heightened. Mentors are significant role models in the lives of others often called their protégés. Mentoring has traditionally been regarded as influencing the quality of novice-master relations, but conventional mentoring literature is only recently re-orienting from similar stage models (Kram 1988; Kram & Hall 1996) to more dialogical notions of guided learning that are grounded in interdependent relations (Bokeno & Gantt 2000; Darwin 2000).

Novices at the cusp of adulthood (for many, seeking first full-time employment) are particularly susceptible to learning because they face a period of time characterised as 'years of great promise as well as great peril, a time when the young mind can open afresh to the stimulation of great questions and the nourishment of worthy dreams' (Daloz 2003: 20). When novices and masters interact through work, this guided form of participation from within practice brings into alignment, the planned (standards), enacted (performed) and experienced (reflective) dimensions of a living curriculum for all parties (Bath et al. 2004), not just benefiting the novice.

I start in Section 4.1 with the conceptual foundation for guided learning and the value of living curricula as guides for acting in connected ways with others. I demonstrate how using such conceptualisations explains the actions of novices and masters performing together in an orchestral context (Section 4.2) and a commercial cookery context (Section 4.3). Music is more often associated with

exhibiting artistic interpretive skills. Commercial cooking is more often associated with delivering practical skills of timing and workflow. I use my empirical findings to demonstrate how both types of skills intertwine when apprentice musicians and chefs learn the tacit and explicit aspects of the professional practice they aspire to as they transition to work.

In Section 4.2 I discuss how developing orchestral musicians learn from rehearsing the performance of a symphony that requires technical proficiency of individual instruments but whose success is measured by the artistry of the unified sound produced. I discuss how developing musicians learn from their professional musician mentors in one-to-one interpersonal ways. In Section 4.3 I discuss how apprentice chefs learn by observing and modelling the practical actions of experienced chefs collaborating to deliver à la carte lunch service. I discuss how apprentice chefs learned from each other during a focus group I facilitated to collect my research data. In each of these situations, it is easy to identify who is the master and who is the novice. It is easy to identify who is mentoring and who is being mentored. Or is it? In practice at work and in theoretical conceptualisations of learning at work, we often move quickly to categorise and label in our desire to explain. As a result, we risk imbuing roles with rigid properties and viewing learning as entitative characteristics of persons, rather than as emerging from mutually influencing interactions.

Using the similarities from my interpretations of musician and chef learning, I discuss in Section 4.4 a conceptualisation of 'the new apprenticeship' in professional practice. Not one of stages of competency from which one graduates to 'being competent' or from peripheral to full participation, but one created by dialogical, mutually constitutive bonds of relational interactions that are developmental and formative, possibly transformative among multiple parties. I believe characterising learning as ongoing 'apprenticing' aligns with the core principles of lifelong learning that traverse work and life (Organisation for Economic Co-operation and Development 1998), without taking on the stigma of being named as *just* a learner as in deficit views of individual learning (Boud &

Solomon 2003). Section 4.5 summarises the major themes in this chapter that articulate how performing together can develop explicit and tacit skills, modes of proficiency and artistry and most of all, the adaptability generated from encountering new and different situations, that is needed to enter and sustain practice as a collective endeavour.

4.1   Guiding learning through living curricula

As children, we are strongly influenced by the role models of parents and teachers in shaping the contexts and the ways we learn. As adults and self-regulated individuals, we remain influenced by others; our awareness of these influences and what we choose to do about these influences is one characteristic of adults as independent practical reasoners (MacIntyre 1999). At school as children, we perceive the central focus of education and our teachers' pedagogic practices is to learn. At work as adults, we commonly perceive that performing tasks, activities and jobs are valuable and value-adding … but now we learn incidentally, accidentally or at best *ad hoc* (Marsick & Watkins 1990), i.e. the central purpose of work is not in order to learn. The view that privileges learning in educational contexts but not in work contexts undervalues 1) *workplaces* as rich, legitimate spaces for learning and 2) the role of *work* as participatory practice that changes how individuals think and act (Billett 2001b: 313-314).

Billett argues that 'there are pedagogic qualities to participation in work … these experiences are often central to the work practice's continuity … workplaces intentionally regulate individuals' participation [providing the structure, affordances and] no separation between engagement in thinking and acting at work' (Billett 2001b: 312-313). Therefore, he suggests the conceptual and pragmatic usefulness of a workplace curriculum model where the natural flow of work activities is legitimately recognised as learning, but that interventions are also planned and enacted to enable further opportunities for learning or to eliminate barriers to learning (Billett 2001c; 2006). Here the use of the term 'curriculum' from the Latin *currere* meaning 'the course to be run', indicates a

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'pathway of participation [that] incrementally provides access to learning the capacities required for work' (Billett 2006: 35).

Although the notion of a workplace curriculum appears to redress the imbalance of legitimacy of learning sites, it also brings along the baggage of a propositional and prescriptive terminology, as if the full set of capacities for work can be finitely specified, even if it is possible to particularise for each workplace. By contrast, participation in the broader 'as it runs' curriculum sense involves a Deweyan experiential focus that is more discovered by actors interacting in/with the world (Bath et al. 2004; Billett 2006; Dewey 1916/1966).

In researching graduate attributes (generic skills such as critical thinking or problem-solving that transcend discipline-specific skills) often identified as the needed capacities required for work, Bath et al. found that planned, enacted and experienced curricula must continuously align 'to create a living and validated curriculum … [so that] generic skills are most effectively developed when they are embedded in curricula in ways that give them discipline-nuanced expression' (Bath et al. 2004: 325-326). For example, problem-solving cannot be learned generically, acontextually or without others. Problem-solving for chefs (e.g. how to cook jewfish quickly – an example I discuss in Section 4.3) must consider cooking-specific practices related to the properties of fish in this situation and the historical methods that have succeeded previously, then tailored to the enactment and experience with *specific* others. In such ways, generic skills improve discipline-specific practice and vice-versa.

What a *living* curriculum implies better than a workplace curriculum is how individuals live a shared life with others enacting the practices which are negotiated within particular sites of learning, such as workplaces, to achieve certain interests and ends that have various material realisations (e.g. organisational goals, skills development, standards of the profession). Guided learning comes about from a *practice* view of learning rather than a *workplace* view of learning. In a practice-based view of learning at work, practice as acting is

'always in the making' (Nicolini et al. 2003: 22) – provisional, evolving, creative and dynamic. Yet practices are also pre-figured. They are shaped by the actions of past practitioners (e.g. the traditional hot method versus the faster cold method of making crème brûlée in commercial cookery; the standards of music notation guiding how loudly (*crescendo*) or softly (*dimuendo*) to play a particular passage of music for orchestral musicians) and passed onto current practitioners 'already shaped … by ways of living that have preceded them' (Kemmis 2007: 125).

Thus the guiding actions of mentors with protégés, masters with novices are forms of practice initiation, stewardship and enactment where the curiosity of the new and different comes together with the wisdom of tradition to challenge the boundaries of existing practice. The challenge for those who manage the interests of workplaces is how to most effectively mobilise the 'bundles of practices that co-occur' (Rousseau & Yitzhak 2001: 9) in any one organisation so that interests and ends are aligned to validate living curricula in contextualised circumstances. I discuss such forms of guided learning that developed from within joint participation in practice (Shotter & Cunliffe 2002; Shotter & Katz 1996) through two illustrative empirical examples in the next two sections, Section 4.2 and 4.3.

4.2 How developing musicians learn from others: At work and from mentors

The educational preparation of musicians and the professional practice of orchestral musicians faces an interesting dilemma in Australia in that the first does not adequately feed into and help the second (Bennett 2005). Music education through tertiary-level institutions (universities or music institutes, genericised here to *Music Schools*) is primarily focused on technical and performance proficiency for individual practitioners whereas professional orchestras require musicians who can excel at ensemble playing and producing the unified sound characteristic of the world's best symphonic orchestras. For developing musicians seeking a pathway into this practice, the transition period in which they learn how to become professional orchestral musicians can be characterised as 'the wilderness

years, a time of uncertainty where the vastness of life, choices and roles bewilder actions that could be taken' (Johnsson & Hager 2008: 526).

This case discusses the learning of developing musicians who participate in two orchestral development programs initiated by SymCo, a leading symphony orchestra organisation. The original program (DEV1) was conceived in 1995 to address potential resourcing shortfalls in the professional orchestra. It aimed to expose students still completing their tertiary studies to performance opportunities through delivery of a series of concerts as members of an orchestra while being mentored by professional musicians. The second program (DEV2) commenced in 2001 to build upon the success of the first and aimed to provide a small group of recent graduates (five to six individuals) with intensive development over one year, exposing them to chamber ensemble playing, masterclasses with visiting soloists and conductors, touring with the DEV1 orchestra and tutoring high school students. In both programs, the developing musicians were paid for their participation (honorariums or fellowships well below entry-level professional musician salaries) and professional musicians acted as mentors through multiple interactions with developing musicians during the program year.

Musicians compete for entry into these two programs via competitive audition, judged by a panel of SymCo's professional musicians who play the same instrument, i.e. violin professionals judge auditioning violinists, etc. The demand far exceeds the available positions: for example in the 2006 program, six musicians competed for each position available in DEV1 and sixteen musicians for each position available in DEV2 (Johnsson & Hager 2006: 37). Each musician must demonstrate a high level of technical proficiency on their instrument to be considered for selection. Further, all participants are typically strangers at the beginning of their participation process, not unlike new employees joining an organisation:

> We're creating this completely artificial group because the only thing that brings them together is that they all won the audition (Program administrator, IN1.10).

The working life of orchestral musicians consists of ongoing opportunities to adapt the standards of practice (e.g. the technical possibilities and limitations of playing the trumpet) to changing constraints in creative ways, i.e. how to play this or that repertoire according to this or that composer's score for this or that conductor in this or that size venue with changing configurations of orchestral instruments and players. This level of adaptability requires embodiment of body and senses to accompany this form of competent knowing and acting to produce aesthetic outcomes at high levels of technical acumen (Dall'Alba & Sandberg 1996; Morris & Beckett 2004). I discuss how musicians guide others to learn this integrative adaptability in a particular example of masters guiding novices during rehearsal for a concert to be performed later that evening to the general public.

The unity of collective performing in orchestra rehearsal

The structure of an orchestra appears on the surface to be highly hierarchical. For any one performance, an orchestra is commonly led by a single conductor who 'directs' the flow of performance of a particular musical work, while musicians sit within certain sections organised by instrumental category (strings, woodwind, brass, percussion) and within each section by role (First Chair, Second Chair, *tutti* meaning the rest of the section). This role usually maps to a position held within the organisation (e.g. First Chair of the cello section is normally held by a position known as Principal Cello in SymCo) but this can vary depending upon resource availability, cultural practice or other local decisions. Yet once a performance starts, it is the mastery of the composer's intended symphonic sound that must be enacted and privileged and not any one particular player or role.

This is a collective acting context where 'real' work is performed: it is a professional engagement like any other that the professional orchestra delivers. The concert performance later that evening will be an outcome that the audience is paying to see with SymCo earning revenues as part of its organisational plan. But it is also an outcome from DEV1, SymCo's development program where learning from and through work is encouraged as a foundational aspect of the program. In

the rehearsal, the developing musicians and their mentors are sitting side-by-side as performers in the positions they will take on in the concert. Figure 5 below provides an account of my observation of the rehearsal and the sequence of actions and talk as the orchestra learned how to improve their performance of a scheduled composer work on the concert program.

Figure 5
Collective performing in rehearsal (researcher account)

I sit in a large auditorium about fifteen rows back from the stage where the orchestra is sitting. Next to me is my co-researcher; on his other side is the program administrator who has organised access for us to observe the rehearsal. Periodically she whispers in his ear, providing some explanatory comments as the rehearsal progresses.

The orchestra is a myriad of colours – bright T-shirts with blue or black jeans of the players, the black and white of the musical scores on music stands, the rich mahogany colour of strings instruments with flashes of gold from the brass instruments. The orchestra will be premiering a new composer work; the composer is also attending the rehearsal and sits with his copy of the score in the first row next to the stage so he can consult frequently with the conductor, Robin.

Robin starts the rehearsal with this new work. The orchestra play ten bars. Robin stops: 'Bar 6, can you hear the oboe? Can you hear it? Mark the beginning, stay down until you get to Bar 13'. The string musicians operate as duos since they share one musical score together – one person points to a place on their score, the other marks something with a pencil. Robin turns to the composer: 'Is it your intention for all the winds to be dominant here?' The composer consults his score and shakes his head negatively. The orchestra plays anew according to Robin's directions. Robin turns to the composer who nods vigorously, accepting the difference in playing.

They continue for several minutes and then break for two minutes while Robin gives directions to the violins. In the break, the Principal Cello leans over to say something to the other cellos in the section. The Percussion mentor (who is identified for us by the program administrator) moves his head forcefully up and down in a series of movements as a way of showing his novice when specifically to come in with the cymbals. As they continue in this start-and-stop fashion, I am particularly taken with the dichotomy between the absolute quiet and concentration as if everyone takes a collective breath together before launching back into performance, compared to the relaxed chatter in the breaks, where questions are asked, jokes are shared and lots of smiling occurs.

As the rehearsal progresses, a flurry of pencil markings are made by players on the scores. The composer leans his head with the beat, sways his body in rhythm and occasionally cups his ear to listen. Three cellos move their bodies closer together for a few seconds, one asks a question, the other marks on the score, then they move back to their prior positions, all the while continuing to play the notes on the score. Across the blanket of some fifty people who comprise this orchestra, there are frequent movements of heads nodding, toes tapping and sways of the upper body. Everyone has intense and very concentrated expressions. As the orchestra plays towards what becomes evident as a climatic ending, the Percussion mentor comes forward to the drum player and mimics forcefully how to play as if to say: 'really put your body into it'. The novice nods vigorously; the mentor steps back and puts his chin in his palm and listens intently. The orchestra crescendos (increases its volume) and the ending is accomplished with a bang. All players lay down their instruments, relax and smile – I hear murmurs of 'good job, well-done' and the murmur of parallel conversations all start up in cacophony.

(Constructed from researcher field notes, G1.1).

What I was able to observe at the rehearsal confirmed the continued importance of observational learning and modelling (Bandura 1977), as evidenced by the (inter)actions of the Percussion mentor with his novice during rehearsal. Additionally, the importance of aural sensitivity (for pitch and balance) and aesthetic interpretation that is needed in embodied music performance. When I interviewed some of the participating mentor professionals and the student novices a short time later after the rehearsal, their comments revealed further insights about how the actions occurring during that rehearsal can be understood as forms of guided learning that are quite different from teacher-student pedagogic interactions in educational contexts.

<u>Two mentors (who also teach at Music School) on novices as professionals</u>

> It's a professional engagement, where they're working alongside professionals. So the interaction is very different. When we teach someone [at Music School], often the student is standing up on their own and I'm sitting in a chair taking notes – it's a very different relationship between them. You're very rarely playing together. You know, the student will play to me, I'll listen and then I'll demonstrate something; it's very much a sort-of … a table tennis thing … rather than playing doubles ... if we follow the tennis analogy. So that's what makes the difference.
>
> And again it's not always to do with what you say, it's to do with playing by example and then picking up what's going on around them. They should ideally, you know … part of it should be unconscious that they should absorb a lot of the culture of the playing, the attitudes of the playing, not only the way you play your instrument but the way you sit in an orchestra. The way you relate to your colleagues. I'm aware when I do it of how I talk to the conductor, how I talk to my colleagues, how I talk to the section. So I'm very careful if I'm leading the section of saying 'we are rushing here' rather than 'you're making a mess of this'. You know I just set an example and not talk too much and just play in a way that they can … Words are very difficult … with music; it's usually better to be as inspiring as possible and it's clear [what] your intentions [are].
>
> (Ray, IN1.8).

> [Becoming a professional is] much more boring than that. It's about coming in, in the right place, not screwing up the solo, and it might not be as hard as anything you might play at home practising – but yes, fitting in with the tuning, the intonation and the ensemble and getting along with people. Not, you know, picking 'musical fights' if you like, not playing different to other people or louder or whatever, just because you think you're right.
>
> Researcher: That's something that would be hard to teach in a class, wouldn't it?
>
> I can't find a way … without insulting people. Like that's why I don't say much to them. I do occasionally make a comment about something that's been bugging me … but I'll let it go for quite a while before I say anything … hoping that they'll listen

and hear that I don't play it that way. That's the way I am, I'm not too good at telling people. Of course in one-to-one lessons, I do nothing but tell them what to do … then that's the big difference between teaching one-to-one and teaching in a more professional kind-of setting.

I mean they're getting paid to be there … not that much … but they're getting paid and we're performing to people who have paid money … to be there. And they are training to be professionals. A lot of them are already working in other situations or even with us – some of the better ones have already got some work with us – and so it gets very blurred where we're up to. Am I still able to tell this person that they're sharp or flat, too loud or whatever, or should they know that by now? It's not like I set traps by not saying anything … but it really is important by that stage for them not to have to be told too much. But they'd listen and pick things up. … [My boss has] got a rule and I think this is a perfect way: if you do it wrong twice, then she'll say something. And she never says anything … to any of us … because we do it wrong once and we think: 'Oops, we won't do that again; played it too long, too loud, too much vibrato'. Fix it up straight away, nothing has to be said. Because it's embarrassing for her to say stuff to me because we're colleagues of twenty years … So we avoid that by just listening … and that's what [this DEV1 program] is supposed to be doing ... and by-in-large, they do get it right.

<div align="right">(Riva, IN1.3).</div>

Two novices on the value of rehearsals and mentors

I probably get the most out of it in rehearsals actually sort of trying things different ways and having someone sitting there given me instant feedback … I [also] get a lot of just watching how the mentors of the orchestra, the mentors just go about their day-to-day life. Like what they do before the rehearsal, where they go afterwards, how they warm up, how they prepare, how early they get there, what sort of attitude they come in with to a rehearsal, how they treat the conductors, how they treat their peers – all these sorts of things you can only learn on the job, no-one can tell you those sorts of things.

<div align="right">(Harry, IN1.7).</div>

The rehearsal is the best part I think. It's where everyone's heightened, thinking this new music, we've got to do it right. It's the time in the string section when in particular, it's our chance to find out what actually happens you know. The leader is writing in the bowing, we've all got to know what's going on. I think a lot of time when I'm writing on the page, I think well someone else might be playing from this part and they may not have remembered what she said or it might ... so you know, it's just that kind of a backup, backup thing.

[In that rehearsal, our mentors were saying:] 'make sure this is … this is a particularly important note; make sure the sound comes out; do this up on the C-string' so all violas are doing it on a particular … so the sound is more unified; 'make sure you're doing it on this part of the bow'. Those kinds of things to make the section play together as if we were one instrument.

<div align="right">(Anna, IN1.7).</div>

As Ray's and Riva's comments indicate, the use of talk to communicate how to learn to become professional is at best inadequate. For Harry, he is learning to model 'becoming professional' through a variety of everyday experiences, not just when he is performing for audiences in a concert. Further, 'becoming professional' also encompasses learning ways to become part of the community of orchestral musicians, of engaging in the practice of orchestra musicians that go beyond, yet embraces, self and skill. Anna's comments about learning how to produce a unified sound as a violist go beyond the skilled technique of learning the right physical position to place her bow. It requires watching through her peripheral vision, it requires a here-and-now awareness to align with her section and orchestral colleagues with whom she will play this work in the evening concert. It requires recognising that learning a professional practice is not only beneficial for individual technique and reputation but contributes in communitarian ways (following Schön and Oakeshott, cited in Beckett 1996: 141) providing a common good that extends beyond the individual.

The shifting dynamics of 'acting' master or novice

Part of this communitarian contribution also involves the changing relationship that develops among practitioners who experience together. As masters who have trodden the worn paths before, experienced musicians act as guides who encourage novices to discover untried paths but also warn about paths to avoid (Table 6 on the next page). Such roles, though, can be fleeting; they are not fixed, nor are they immutable identities. Otherwise novices would never become masters and practices would never change. Darwin suggests that 'mentoring is less a *role* than the *character* of the relationship' (Darwin, cited in Johnsson & Hager 2008: 528, citing author italics), providing a sense of mutual care among practitioners. In music, this seems to be particularly relevant:

> An individual may already be an expert violinist but this does not mean she can become an expert orchestral musician playing the violin. She may be an expert interpreter of Shostakovich's music but always remain a mediocre interpreter of Ravel. Furthermore, individuals may be simultaneously members of multiple communities with quite diverse approaches to learning and mastery outcomes when, for example, the composition of those communities change (Johnsson & Hager 2008: 528).

Table 6

Table 6
Mentors guiding paths to follow and paths to avoid

Paths to Follow	Paths to Avoid
S: We often swap the parts around. So they get the chance to not only play different notes but to play a different role. Like when you're on that First Chair, you've got to lead, you know … One guy said to me at the start of the week, I really don't feel like I want to play First. And I said, at some point during this week, you will. Like it or lump it. 'Cos you know, you're a good player and chances are, you'll have to take this role at some stage. R: What do you think was behind his reluctance, was it just fear and anxiety? S: Yeah, just confidence. I think. Yeah and he was the kind of guy who was <u>extremely</u> respectful and very … you know all he wanted to know was what he was doing wrong … And I like to say, you might be needing to be work on these things <u>but</u> let's look at the upside for a minute … you're capable of playing this part … So I gave him like a day; I didn't tell him. And then we came in the next morning and I was just sitting in the Second Chair warming up. He said: 'you said later in the week'. And I said: 'It's later in the week you know' ((laughs)) and he was great! He just needed someone to give him that push.	C: One time I got into big trouble because I hadn't learned my part for the first movement of Tchaikovsky 4 [Fourth Symphony] which is what we're doing today … The other guy who was doing [DEV1]; he and I didn't learn our parts and the mentor just said: 'It's unacceptable, I would never do that; go home and learn your part'. And it was just a read-through so we didn't take it seriously. But we looked really bad and I felt really bad. Then when he came down on us, I felt even worse and that's a definitely a lesson that I've really kept. Yeah, just be prepared.
(S=Steve; R=researcher, IN1.11)	**(C=Cody, IN1.5)**

Steve, an experienced mentor and brass player, observes how his mentoring experience has become a two-way process to renew practice together, rather than a simplistic one-way transfer of 'expert' technical skills and cultural knowledge to his novice:

> [Mentoring has] always [been] a good chance for me to keep up with what the students were talking about and doing. So it was a real two-way street … and still is. … There's one guy who comes in now and has a new designer valve, this bit on the back of the trombone there ((both of us look at his instrument in the room where the

interview is being held)) and it's remained pretty much unchanged. And I was the first one in this country to get this new type of valve sixteen years ago and now there's another type of valve that's just come in I know nothing about …

And so he's brought it in and I've had a chance to play it, so it's been interesting from that point-of-view; you know it just looks like a simple thing but there's a lot of … technological advances going on. It's easy to sit in a job and think this is what I do. Suddenly someone comes in with a new one and makes you think about it again. Yeah, it's been a two-way learning street.

(Steve, IN1.11).

For Steve, an experienced professional, his DEV1 practitioner encounters enable him to look at his own practice with 'novice eyes', with a similar curiosity and freshness that is a core benefit that novices bring to practice. This renewal of practice can extend in generous ways to larger groups as well:

The trouble for [the artistic director] is he has to balance the repertoire across the entire orchestra. So something that is fantastic for the wind section might have nothing for the brass. Something that's good for the brass might have not much for the strings that's of real interest. There are times when the brass have nothing much to do and that's quite normal in an orchestral experience. So I always … personally I always made sure that we had an extra time.

And it wasn't necessarily officially organised; sometimes we'd get in early before the rehearsal started or stay back afterwards, and we would play, you know, some excerpts as a section, from the symphonic repertoire. And as I said before, it's not as good as playing in a full orchestra, but still for them to play with a professional player, to see what we actually do in an orchestra, it's very different from perhaps someone they have learnt from who maybe hadn't played in an orchestra and talking about the theory and listen to these recordings. And also, some of them ... because [for example] a trombone is limited in its repertoire … you find a lot of players are often interested in arranging music for groups of trombones and it really just comes out of necessity. So these students are aware of that and some of them would have arranged something or said: oh, can we try this out?

(Steve, IN1.11).

Graduate musicians who start off the program year as initial strangers and equal peers in the DEV2 program also learn how to experience different textures of 'mastery' and 'novicehood' as part of building a cohesive group together. For some types of music or types of repertoire, individuals may already be more experienced than others, but this issue becomes less important when creating an identity as a group rather than remaining separate individuals and performers:

Everyone's coming in with their different experiences that they've had, which at this point is quite a substantial amount of experience I guess. You know, I've done my

stuff in America where I'd done a bit of chamber music but not a lot; one of the other girls felt like she'd barely done chamber music before; and one of the other girls had done a whole heap of chamber music before.

Just the way you approach pieces – some people had done them before so that's either a good or bad thing but I guess you're learning … I mean in that year, you've got the assistance of tutors to come in and say: maybe you should be looking at what part of the bow they're in; how to develop your own ears for intonation and stuff; just taking things apart; and you just learn more and more how much the communication, I guess, takes on just about every sense that you have with the visual, just feeling things together, breathing together, all of that kind of stuff … trying to be one entity … instead of five separate [individuals].

<div align="right">(Dean, IN1.9).</div>

Through the voices of several orchestral musicians in these excerpts, this exemplar has shown how developing musicians participating in these programs are learning how to become practising professionals – at work in rehearsal and through their interactions with mentors. Such forms of guided learning are significant because they represent living curricula that provide guides to paths out of the workplace wilderness. They have meaning because they are forms of relational generosity that are voluntarily given:

Mentors … lead us along the journey of our lives. We trust them because they have been there before. They embody our hopes, cast light on the way ahead, interpret arcane signs, warn us of lurking dangers and point out unexpected delights along the way. There is a certain luminosity about them, and they often pose as magicians in tales of transformation (Daloz 1999: 18).

[Mentors] walk at times ahead of [their] students, at times besides them; at times we [as mentors] follow [our students'] lead … [The act of guiding matters because they are] preeminently acts of care (Daloz 1999: 244).

This section has discussed how developing musicians learn from the experiences of performing alongside their professional mentors. They learn how to become professional by doing, talking and inferring relationally and responsively to cues that happen or that they initiate in their work environment. The next section discusses how a different vocational context – that of commercial cookery – provides similar relational patterns of interactions for apprentice chefs.

4.3 How apprentice chefs learn from others: At work and from a focus group

The profession of commercial cookery in Australia is one characterised by chronic shortage of supply, alarming double-digit attrition rates and a dominantly casual workforce (Australian Bureau of Statistics 2004; Department of Science and Training or DEST 2005). The life of a professional chef requires the dedication of a vocation and a persistence that goes beyond the utility of a job to obtain economic security:

> The life of a cook or chef is commonly known to be very physically tiring and stressful, requiring long work hours at night and during weekends for little financial return with minimal recognition or credit from employers or customers. Similar to other artistic professions, cooking is often considered a labour of love; something people do because they have a passion or flair for it, or for the intrinsic satisfaction of creating a dish that is eaten to be appreciated rather than just to satisfy a biological human need for sustenance (Johnsson & Hager 2007: 2).

There is a recognised hierarchy within commercial kitchens that is inherited from historical French cuisine operations (ChefTalk 2008). Cooks are divided into sections or lines known as *partie* with each section responsible for certain types of food, for example fish, grill, cold food (or larder) and sauces. Each section is headed by a chef (*chef de partie*), followed by deputy chefs (*demi chef*), junior chefs (*commis chef*) and lastly *apprentice chefs*. Smaller kitchens can dispense with this hierarchical structure to work more cross-functionally. Therefore in any one kitchen, the hierarchy of command could be as follows:

- Executive chef (in larger kitchens)
- Head chef
- Sous chef (typically runs the tactical operations of service)
- Chef de partie (one for each section depending upon size of kitchen)
- Demi chef
- Commis chef (typical entry level after receiving trade qualification)
- Apprentice chef.

In the hospitality sector of which commercial cookery is a segment, apprentices recently comprised seven percent of the workforce (November 2003 data, DEST 2004), a growing and non-trivial percentage. In commercial cookery, the apprentice period is typically four years, although a six-month early release option

can be requested and approved depending upon the quality of results over the apprentice period.

The traditional employment relationship in organisations exists between two parties: the employee and the employer and is governed by the existence of any organisational contracts or industrial agreements. In Australia, the qualification training of apprentices in vocational trades inserts, in most cases, a third party called the Group Training Organisation (GTO) that acts as the apprentice's legal employer that 1) performs the administrative functions of employment, 2) oversees the progress of educational coursework, normally performed at Technical and Further Education (TAFE) institutes in parallel duration with employment, and 3) ensures the placement and quality assurance of employment training opportunities. The structure of the Australian program is similar to work-based youth learning programs in the United Kingdom and Europe (Bailey et al. 2004; Lynch 1994; Tanggaard 2007) where participation in school and work occurs in parallel affecting both.

The apprentices interviewed as part of my case study were all employed by one GTO that focused solely on group training for the hospitality sector with the dominant part of its business to develop apprentice chefs for commercial cookery. I observed apprentices in action at multiple worksites, performing in the context of à la carte restaurant service (i.e. the nature of the dishes prepared depended upon incoming customer orders) and within a production kitchen oriented towards convention dining (i.e. bulk preparation of advance function orders). In the previous section, Section 4.2, I demonstrated how developing musicians learned to develop an adaptable artistry through blending their instrument sound with others to provide a unity of symphonic sound suitable for the local factors in particular contexts. I discussed how the tacit aspects of everyday practice that are difficult to state in words, must be lived as living curricula and how the accountability for guided learning can shift in changing ways, going beyond official roles. In this section, Section 4.3, I show how pragmatic considerations of time pressure, outcomes and uniformity can develop contrasting qualities of

differentiation and individual style needed to separate a cook from a chef. I show how guided learning from multiple others is a similar example of stewardship in practice that helps apprentices to discriminate from contextual cues as a basis to learn their vocational practice.

The first exemplar illustrates how kitchen staff collaborate to deliver customer orders for a restaurant lunch service. Each section of the kitchen must work in coordinated ways to deliver an end product when the *customer* wants it rather than when *staff* can produce it. This requires meticulous timing, attention to workflow and the ability to continue acting under pressure when inevitably, things go wrong. To some extent, work in this profession represents examples of practical integration based on models of part-whole learning (Knowles et al. 1973/1998; Velde 1999) where small tasks are first learned and practised (e.g. learning how to prepare just the side accompaniments like green salads or vegetables) before combinations of tasks are put together (e.g. learning to put both the main and side dishes together for one customer order). However, recent research into holistic competence and embodied practice (Beckett 2008; Dall'Alba & Sandberg 1996; Sandberg 2000) suggests that learning the pieces of more complex tasks does not necessarily mean that the entire task can be proficiently managed towards a common outcome. Collective competence does not necessarily generate from combinations of individual competence (Boreham 2004); there is something more, created from interactions among actors, that is irreducible.

The second exemplar of apprentices discussing their learning in a focus group shows 1) how guided learning emerges from multiple interactions with multiple masters over various contextual situations, and 2) that diversity of interaction and context are important conditioning factors to apprentices developing judgement skills to discriminate what actions are appropriate. Similar to the previous orchestral musician exemplars, the notion of 'master' is relative with members of the focus group taking on varied mentoring characteristics to help each other learn while talking about learning.

Producing quality uniformity with interdependent others in à la carte service

> Those in the restaurant trade differentiate between the *front of house* where customers sit and the *back of house* where the cooking occurs. The front of house, especially in fine dining establishments, is designed to provide an enjoyable dining experience where food can be appreciated socially – the furnishings may be simple or elegant; there might be ambient lighting at night, soft music playing in the background, a reserved level of social conversation and talk.
>
> In the back of house, mayhem and cacophony happen. People in chef *toques* [hats] and white uniforms splattered with stains move in constant motion. Pots and pans clang. Dishes bang as they are stacked on top of each other. Flames rise and fall on the stove, sauces bubble on the cooktop, steaks sizzle on the grill. Tantalising smells waft in and out. Intense looks on everyone's faces. 'New order!' shouts the *sous chef*, 'Two minutes to the duck salad!' Two chefs put the finishing touch to a customer order: one places the wild mushrooms on a bed of polenta, the other places a curl of beetroot garnish on top and wipes the drop of sauce off the rim of the plate with a clean cloth – they are poetry in coordinated motion in two seconds flat. Ping! goes the bell – another customer order is ready. The docket machine spews out a new order. Service continues.
>
> (Johnsson & Hager 2007: 7, italics in original).

Just like the dichotomy between front of house and back of house, à la carte service requires agile managing of several instantiations of same and different. Customers who order duck salad have previously-formed expectations of what the dish may look like and taste like, yet they build a chef's reputation on how (s)he adds a unique flair to the restaurant's version of duck salad. While the chef wants the house crème brûlée to stand out from the competition, the crème brûlée served to Customer A needs to be the same as the one served to Customer B especially at the same table. A customer's meal order and plate presentation is generated from the multiple efforts of several workers who only produce parts of the order, yet it must appear as if the meal on the plate is a designed work of art appreciated for its cohesive image and complementary tastes. Uniformity and standardisation of outcomes are important indicators of production efficiency and reliability, yet they depend on the coordination of processes that can vary widely.

The restaurant where I observed the kitchen preparing (called *mise en place* from French 'setting in place' meaning everything in its place) for service, delivering lunch service and cleaning up afterwards is one that has a reputation for fine dining. The front of house enjoys a panoramic vista of water views with high

ceilings, modern decor and plenty of light. Tables are laid out with crisp linens and gleaming cutlery. Wait staff are dressed in business black with white aprons, providing an aura of discreet professionalism. During my observation which covered forty-five minutes of preparation plus two hours of lunch service, I had a 'birds-eye' view of the open kitchen (no closed doors between front and back of house). I made extensive field notes and taped the kitchen discourse (the tape was used only to refresh my recollections since the background noise of a busy kitchen made it unsuitable for transcription). The menu used at lunch service is reproduced in Figure 6 below.

Figure 6
À la carte lunch menu

Lunch Menu

ENTRÉE
Potato gnocchi, roast pumpkin, feta, rosemary
Kingfish carpaccio, radish & celery leaf salary, citrus dressing
Stuffed baby squid,lemon, pine nuts, tomato
Fig, prosciutto & gorgonzola salad, aged balsamic [*special*]
Pork & rabbit terrine, mustard fruit, cornichons

MAIN
Mushroom escabeche, pencil leek & watercress tart, poached egg
Blue eye, green papaya crust, chickpea salad, raita
Seafood pie, white wine & taragon cream, tomato salad
Truffled corn-fed chicken, wild mushroom risotto
Veal cutlet saltimbocca, dauphinoise potato, lemon butter
Braised lamb shoulder, baby vegetables, pea puree

DESSERT
Passionfruit mousse, orange blossom caramel, fig & walnut cigar
Cassata ice cream vacherin, roasted quince
Warm muscat, prune & almond pudding, buttermilk ice cream
Chocolate & chestnut dacquiose

Cheese selection, port pear jam, sour cherry & hazelnut loaf

(Source: Provided by host employer, G2.1)

In Figure 7 on the next page, I have constructed a visual depiction of activity highlights from my field observation.

Figure 7
Interactions in à la carte service
(activity highlights)

BACK OF HOUSE

Other chefs preparing function orders
(not involved in lunch service but available contingently)

Cold | Sauce | Grill

cold storage

AC   **EC**   **SC**

DC

Counter where finished customer orders are placed

Wash up

FRONT OF HOUSE

AC   **EC**   **SC**

Preparation

1 Entrée special demo

'I want the leaf this way, no larger than this'

AC/SC create entrée special together

Used to educate wait staff on taste, ingredients and pricing

2 First customer order

(docket spews out order)
'2 lambs and a green bean!'

'Oui!'

- Quick fries 2 lamb cutlets
- Places 2 white plates on counter
- Places pancake on each plate

- Places empty bowl on counter
- Beats eggs
- Quick steams beans

- Prepares seasoned butter
  - Places lamb1 on pancake1

- Place butter on lamb1

- Lays beans & dressing in bowl
- Places lamb2 on pancake2
- Place butter on lamb2

- Puts on finished counter

- Wipes rims of both plates
- Puts on finished counter

Service

(docket spews out order)
'3 minutes to blue eye!'

((sigh)) 'I feel like I'm behind already!'

- All three chefs move to stove to see pot that's cooking
- Indistinct discussion on 'texture'
- SC stirs with wooden spoon

(docket spews out order)
'Another green bean!'

continues …

3 Green bean incident

'4-5 minutes to green bean!'

'Okay'

- AC shells beans into plastic container close to edge of counter
- AC uses plastic top to hold discards
- AC drops bean discards to floor in front of EC
- EC moves over, pushes container away from edge, evens out placement
- EC whispers to AC (inaudible). AC nods. EC moves back to prior position

Source: Reconstructed from field notes, G2.1
Legend: AC = apprentice chef; DC = dessert chef; EC = executive chef; SC = sous chef

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I have focused on the interactions among the following individuals:

- The sous chef (SC) who is tactically directing the delivery of customer orders and is 'in charge' for lunch service. He is also responsible for the grill and hot sauce portion of customer orders.

- The executive chef (EC) who collaborates with the sous chef on grill and hot sauce orders. He also provides quality assurance and can override or re-direct any decisions in the kitchen.

- The apprentice chef (AC) who is responsible for cold larder (e.g. vegetables, salads, dressings, garnishes) portions of customer orders.

In contrast, the dessert chef (DC) is responsible for all dessert orders and is self-contained, i.e. he receives the dessert order via docket, makes up the order and places the completed order on the counter for wait staff to serve. While he waits on the next customer order, he mixes ingredients, prepares trays for the oven and ices cakes.

While lunch service is progressing, all staff in the kitchen are engaged in casual conversation in pairs or small groups quite disconnected from the tasks that their hands are performing. Topics include what the plans are for Saturday evening, rugby league scores, the latest drama series on television and the next planned holiday overseas: non-work topics that build a sense of solidarity and community in shared work (Eggins & Slade 1997). There is a sense of camaraderie in the talk and plenty of joking that juxtaposes with the wafting smells of good food and the occasional bangs and clangs of pots being washed by the kitchenhands. Otherwise, kitchen work-related discourse is short, bursty, purposeful and task-oriented. As evidenced by the talk of the sous chef, it is accountability and time-oriented, for example: 'Another green bean!', 'Three minutes to the blue-eye!' with all cooperative efforts focused on delivering quality customer orders as part of an efficient kitchen operation.

In this work environment, and similar to orchestral work environments, watching others, modelling behaviour and performing one's own tasks in coordination with others are important. For example in Figure 7 Activity 2, the outcomes of the

apprentice chef's work (an order of green beans) must be timed to coordinate with the sous chef's work (two lamb cutlet mains) since they are to be served together to diners at one table. If the green beans are finished too early, they may become wilted and present poorly. If the lamb cutlets are ready too early and must wait for the green bean, the meat may harden or get cold, reducing their tenderness and quality.

Even while delivering his own support task to the sous chef of finishing customer orders (e.g. the seasoned butter on top of the lamb cutlets and other presentation touches), the eyes of the executive chef are in constant motion, scanning the activities within the kitchen as well as roaming the front of house as customers arrive, dine and leave. He has a clean tea towel over one shoulder and is constantly clearing and cleaning the bench space in front of him, re-arranging his knives after use in military fashion and wiping down the chopping boards in front of him. When he had to correct the apprentice chef's actions in Activity 3 (Figure 7) when she dropped the green bean discards on the floor in front of him, his corrective actions were performed with an economy of motion and calmness, a demonstration of the correct position to place her containers and a discreet few sentences of advice that only she could hear.

In an environment that requires this level of precision of production outcomes, one would expect that learning the 'right way' to perform would be important to develop the efficiency of process that is required. However, this is not the case as my interviews revealed with Jeremy (executive chef) and Teresa (Year1 apprentice) shortly after service was completed. In Teresa's comments below, she discusses the importance of different learning styles cued by her reflections on learning how to produce the entrée special – the fig, proscuitto and gorgonzola salad with aged balsamic – coached by Jeremy during preparation for service (Figure 7, Activity 1):

> Every time you're in the kitchen, if the chefs change, you have to change what you produce … because they have different expectations. I find a lot with Jeremy, he is very specific, which is good, because he's detailed. Like with the entrée special today. Like we did a demo yesterday. And today he said: 'I don't want it any larger

than that'. And we'd minimised and increased it but Jeremy was like the final word. So now that I've seen that, definitely with Jeremy, you don't do any different.

… Now with Ben [the sous chef] … he's more one-on-one with someone when he does things. He's more of a 'show' [person]. Jeremy, he tells and then he expects you to produce it. Both of those techniques help, especially when you have both of them. If there was only one, I think I think I'd find myself lop-sided a lot.

Also you haven't met Alison, [a] fourth-year, on Larder … we have … two-days on together a week. So if I find I haven't heard something or I haven't learned something, I have easy access to … like my other half of the section. And so it makes everything really rounded because Alison's gone through all the learning. And she is really competent.

… So I find I have a lot of access to different learning styles. It's always the person; it really depends on the character of the person as to how you learn. Especially with me. I mean I'll ask but it's easier when I'm shown. With a lot of things, it's like, how many times? With the dish today … 'cos I'll go back to the example … the [entrée] special, I've had Alison show me yesterday, Ben showed it to me today, the little details from Jeremy and added-in bits from me. So it's always a group effort, especially in how I get the end result.

(Teresa, IN2.6).

As with orchestral work contexts, the interests of the restaurant workplaces must be managed and accommodated: chefing is a professional service embedded within a restaurant that must be commercially viable. Here, guided learning remains one of nurture and care, admittedly difficult in an industry where some employers have long considered apprentices as cheap labour for hire (Cornford & Gunn 1998). But similar to the musician-guided learning discussed in Section 4.2, this mode of learning is not a simple one-way transfer of knowledge from experienced chef to apprentice chef. Learning must be a dialogical and shared process of accountability in order for interacting parties to obtain reciprocal benefits. Jeremy explains his personal lived curriculum requiring a commitment to learning that involves teaching others and the values that guide his practitioner approach, using the green bean incident with Teresa (Figure 7, Activity 3) as illustration:

It's a different tempo when *mise en place* is being done as opposed to *service*. With service, there's a commitment, there's an obligation, you need to service the people out in the restaurant in a certain amount of time. If somebody falls over, they panic, you know what I mean? So it's a very hard … so unless you've got confidence within yourself that you can do the job. A lot of people … they struggle.

The difference is … about how people go about themselves. Their organisation skills, prioritising is a big thing. And when you first come into a kitchen, it can be a tricky

thing, just working out what the more important jobs to do first as opposed to least important. When you sit down with [them] some of them have got it all mapped out… some of them are sort-of like … are in a pickle. So you can work out fairly quickly who has the right assets. Someone else needs a lot of polishing and a lot more improving. But the best way [to] learn is by trial-and-error. They've got to work their own schedules out. I can assist as much as possible, but I'm not there to hold someone's hand every minute of the day.

And it's about people having the initiative, the integrity and willingness to learn. You know, come and ask questions. If I was to mention a comment like in service today, Teresa was peeling the broad beans. Well, she had a container and a lid, she was putting scraps on the lid and the broad beans on the bench. Well, I say: 'Go and grab three bowls, one for the rubbish, you want one there, one for the finished product. What are you going to do, you're going to double up?' It's probably just simplistic practices. And in the kitchen, things have got to be methodical and nearly clinical to a degree … So your knives there ((pointing to table)), your bread board here, put a clean cloth here … it can be very structured … you need to be clean and tidy in the kitchen.

It's about looking at the whole picture and where everybody is in that picture … and understanding who's doing what and whom for. [At other times] I'd probably have pulled one of the guys out from the back to do what I was doing. Maybe pulled someone to help Teresa. And we would have conducted *service* like that. And all this that goes on in the back [the function orders] goes on hold until after service. If that means some of the restaurant guys needs to jump back after service to help out to make up for the shortfall of preparation, then that's what it is. At the end of the day, it's about the customer and you do what it takes to satisfy their requirements.

… [I always work] side-by-side [with them]. I watch what they're doing. I cast my eyes over … me casting my eyes over so constantly is one of my biggest tools to know what people do … without actually going up to the them and saying: 'What are you doing?'. So I can see someone [and say]: 'You've been on the beans for 45 minutes: you need to pull your finger out'.

… They're young kids at the end of the day and I just think [typically] they haven't been nurtured. We need someone; it's cheap labour; let's just get someone in [to get] as much as we can. That's <u>not</u> what it's about and I think they're some of the contributing factors why people do pull out – they're not looked after. An apprentice will [come here and] I'll ask an apprentice: 'what did you do [in your previous placement]? – Oh I did the dishes for the first year and half or two years'. Well, a cheap kitchenhand. … if you're not learning anything, people are not going to stay. And there are kids out there who are willing to learn. And we've been lucky here with the apprentices; it's taken awhile to find some decent ones, but once you've got them, you've really got to nurture them.

Teresa is doing well; Alison is just finished her fourth year at TAFE which is great. She's qualified now for the level that they're at. It's just nice to see that the effort you're putting in, something's coming back out of it … I just don't think the initiative's enough, there ain't time because that time … it costs [a restaurant] so much money, they don't have the time to spend with the apprentice.

(Jeremy, IN2.5, emphasis by participant).

This observation of chefs at work demonstrates how interdependent tasks involving multiple others create opportunities for part-whole learning that require attention to detail, understanding of workflow and a 'tidy mind'. Yet the drive to produce consistent and uniform outcomes does not mean learning the single right method from experienced chefs. Apprentices are exposed to many pragmatic methods and must develop the discrimination skills to adapt and determine which variation of methods are appropriate and useful in which particular contextual situations. The next exemplar discusses additional characteristics and features of this judgement-guided approach to learning that develops from interacting relations with others.

Learning from multiple others within a focus group

Focus group interviewing is a research method that is organised around themes and issues of interest that can provide a forum for different perspectives to be heard and ideas to emerge through interactions among participants (Krueger & Casey 2000). The following extract is from a focus group that I facilitated as part of my data collection. Present are four apprentices with varying tenures in their apprenticeships:

- Jill and Rosa are Year 3 apprentices.

- Corey is a Year 2 apprentice.

- Lydia is a Year 1 apprentice.

In response to my prompt, the four apprentices are discussing their views on learning that has been surprising or unexpected. Lydia's response raises a mode of learning that can occur during what Beckett calls 'hot action at work' (Beckett 1996; 2001), that leads to further learning 'in the moment' within the focus group conversation through an incident that Corey then relates.

Extract 1: IN2.10
Apprentices: Jill (Yr 3), Rosa (Yr 3), Corey (Yr 2), Lydia (Yr 1); R=researcher

1	R:	How is learning different? What sort of learning is surprising maybe?
2	Lydia:	In the heat of the moment, I find when there is a stuff-up, I learn more
3		because you have to go and think. Normally, I'm just told: yeah blah,
4		blah, blah, do this. But if someone said, oh god, we don't have a
5		Caesar Salad for… you have to run back to the kitchen and … you
6		can't just go: oh damn!
7	Corey:	One evening, they had service. I was on morning shift. There was a
8		whole [group] on night shift, they were doing dinner. I was still here.
9		They ran out of jew[fish] in the servery – we had some in the fridge.
10		We had to think what we could do. We put it on the stove. It wasn't
11		working quick enough. Turned around, there was a wok sitting there –
12		use a wok; think on your feet, how can you do that quicker? Do I
13		steam it, what do I do? But yeah, the quickest way … that's learning.
14	Lydia:	I would not have thought to put it in a wok. Like that's just me maybe
15		at first year level. But I would never have thought to put it in
16		something. I would have done it the way I was taught – in a pan.
17		But ((looking curiously at Corey)) why did you put it in a wok?
18	Jill:	It's quicker.
19	Corey:	It's a lot quicker. And you have a wok burner up there. On the
20		ceramics, brick whatever it is.
21	Lydia:	But how did you think of it? Like were you told? Did you see?
22	Corey:	We weren't told; it's just like learning. OK, you turn the flame up
23		higher – hang on, I need a higher flame, what can I do? Do I pour oil
24		on the stove, things like that? Hang on, 350° for how long: 3 minutes
25		versus 15 minutes on a stovetop – you learn things like that; little
26		things that you watch other people doing.
27	Rosa:	It depends on the individual as well as to how much you want to learn.
28		How much you pay attention.

Here, the three more experienced apprentices help Lydia understand that acting in the moment can *consider* what has been previously taught but now must *judge* the relevant factors in the situation to determine the appropriate action to proceed (lines 18-28). These factors include the interests of the workplace (the dinner service in progress which should not be delayed to become embarrassing for the company), practice knowledge and standards (pan cooking time versus wok cooking time, temperature required, cooking time requirements for jewfish), situational factors (availability of the wok burner) and the practitioners involved (the individuals who then decide to cook the jewfish on the wok burner and their individual skills and experience in wok cooking). In compressed time, judgements and actions intertwine to provide guidance to each other through the intentionality of the practitioners involved.

Similar to the holistic interactions between Jeremy and Teresa described during à la carte lunch service, the apprentice interactions in this portion of the focus group discussion reconstruct how practitioners in the jewfish incident contextualised judging, acting and talking into a holistic learning experience that also met the interests of the workplace. Lydia, having heard this account of the jewfish incident for the first time, can now make inferences about the relevant use of wok burners to be considered for future action. This inferential understanding is a different kind of understanding as learning (Beckett 2001) and a form of guided practitioner learning that must be lived and experienced (Dewey 1916/1966) by Lydia to form participation-based experience. Further, Extract 1 shows how mentoring behaviour is not the privilege only of those called masters or experts. Around the table, they are all apprentice chefs by designated role. But Corey, by virtue of having participated directly in this experience, narrates the jewfish incident from the perspective of a mentor or teacher, guiding Lydia through his thought process and illustrating his actions as part of the team that had to develop a practical solution to an unexpected problem.

Guided learning implicates guided teaching, bringing in the values of practice, where practitioners judge each other by the standards they hold personally and what they perceive professional practice standards to be. In Extract 2 through talk, the apprentices make explicit what these values are that shape commitment to the profession, as they struggle to find their personal role and identity as developing professionals.

Extract 2: IN2.10
Apprentices: Jill (Yr 3), Rosa (Yr 3), Corey (Yr 2), Lydia (Yr 1); R=researcher
1   R: What is it that you want to use your qualification to do?
2   Corey and Lydia (simultaneously): Travel.
     Rosa (2 seconds later): Travel.
3   R: Travel overseas presumably? OK. So you see the profession as a
4   stepping stone to enable you to travel overseas?
5   Corey: You're never out of work.
6   Lydia: Yeah.
7   Corey: Ever. You're never out of work ever. There's always a job out there.
8   R: And where overseas would you like to work?
9   Lydia: Italy.
10   Rosa: Europe.
11   Jill: Europe. Asian countries.

12	Corey:	Asia and the United States. The Mediterranean.
13	Lydia:	Yeah.
14	R:	And through what type of restaurants … Fine dining? Hotels? Doesn't
15		matter?
16	Jill:	It doesn't really matter where you work, I reckon, that's how I see it.
17		Depends on how much you want to learn. If this is what I'm learning
18		here right now. But if I want to learn more, I know what I can do
19		more. Like my own time, my own way.
20	Lydia:	Personally for me, this is what I want to do. But I've noticed now
21		[what] I want to concentrate more on: I want to be a pastry chef. I find
22		more passion in that for me. And then I was thinking, maybe go to
23		France. Because they concentrate on that stuff over there.
24	Jill:	I've been trying to think, like the last couple of months, after finishing
25		my apprenticeship. Before I started, I had different goals and different
26		pathways. Now I'm starting to ((inaudible)) I've also noticed that with
27		other people. As soon as they start to come towards the end of their
28		apprenticeship, their pathway sort of thing ... At the moment, I'm sort
29		of struggling with deciding what I want to do. I have this pastry chef
30		friend and he's really good with pastries so I was thinking about
31		checking up on a pastry course, doing pastry and stuff. I've been
32		researching on the Internet all the different courses on pastry.
33		It's different what you go through in your four years of your
34		apprenticeship. Over time, things change. I have changed; things
35		change a lot.
36	(continues for 20 seconds about timing of overseas experience)	
37	Rosa:	I don't know what I want to do at the moment. I just know I want to
38		be a chef. I definitely agree with Jill when she says when you
39		come to your third or fourth year, definitely have to think about what
40		you want to do with your career.
41	Lydia:	Even as a first-year, I'm feeling the same. Like I thought I had a
42		passion. Since I was seven and to come here, and be like: I don't think
43		this is what I want to do …'cos I don't think I can cope with it. And.
44		because of the people here that make you think that. But you got to go
45		through it; you can't drop out for a second. Even when you get to third
46		or fourth; that's the years you have to stay in it because you've gone
47		two years in it. You can't just go away.
48	Corey:	Of course you can. Why do something if you're not passionate about
49		it?
50	Lydia:	Because you have a qualification up your sleeve.
51	Corey:	So that's all you're after.
52	Lydia:	No, the knowledge to be able to cook. It is not a bad thing to be after
53		the certificate and to be qualified as a chef.
54	Corey:	OK, that's your personal opinion.
55	Jill:	As long as you know in time you can cook and feed yourself and
56		others around you.
57	Lydia:	That's what I thought – create your own business.
58	Jill:	Even though I'm not doing chefing, let's say in the next ten years if I
59		don't like it, I might do something else, I still have the knowledge that
60		no-one can take it away from me.

In Extract 2, Lydia, who has six months' experience as a first-year apprentice, is already forming ideas about where she could focus, where her worthy dreams (Daloz 2003) might take her (lines 20-23). Jill and Rosa as third-year apprentices who are closer to the imminent next-step career decision when their apprenticeships shortly finish, are more ambivalent and cautious in their responses (lines 24-35 and lines 37-40) – perhaps also more pragmatic as a result of additional practitioner experiences. The dialogue between Lydia and Corey later joined by Jill (lines 41-60), makes explicit various motivations for pursuing the profession. Instrumental motivations (e.g. to gain a credential) identified by Lydia are discounted by Corey, but Lydia and Jill remind him that the practical understandings gained through a professional practice go beyond his interpretation of participation as only the pursuit of ends.

All the exemplars discussed in this section (as well as the musician exemplars in Section 4.2) illustrate how learning with others is an emergent phenomenon that is strongly influenced by interactive relations of actors using cues from their contextual environment. The notion of guided learning from multiple others is not just an instrumental means to ends to satisfy the interests of workplaces, although striving to do this is often demanded and appropriate. Guided learning recognises the stewardship of practice and the tradition of passing along both artistry and proficiency to others implicated and involved in the practice. Learning and teaching are interrelated: 'A committed passionate full time teacher will induce a passionate life long student' says Miller (2007), arguing for more 'passion improvers … within a nurtured indentured apprenticeship' in Australian commercial cookery.

Teaching forms part of the heritage of practice and is not a role restricted to only experts or experienced practitioners:

> I suppose the good things about being an apprentice to a chef is that everyone you learn off has learned from someone else. So you might learn off someone, but through their time, they've have learned off ten people

<div align="right">(Leon, IN2.3).</div>

If I [had] walked away [from a cooking competition the apprentice had been 'petrified' to participate in, my chef mentor's] psychology was that he'd be a failure, you know, well if I can't teach someone, then that's part of my trade as a chef. I'm a chef ... I have to be able to pass on the skills. I think that was his idea of it.

When you teach, it refreshes your mind. When you're teaching, it gives you initiative to go out and learn yourself. When I was a first-year, I didn't have one cookbook. Now [being a] fourth-year, I've probably got about thirty to thirty-five cookbooks now. I never used to read; I'd just browse. You don't read cookbooks; you'd just browse over it – oh, that looks nice, gives me a new idea, there's an ingredient I haven't heard of before, look that up, learn a bit more about that, what's that new method, I'll try that at work.

(Jack, IN2.12).

Yet guiding learning does not imply unquestioned copying of the teacher's actions or talk, or prescriptive obedience:

They have to find a way that they can work best. It's pointless that somebody would copy me. Because that is the way I'm working and that is the way I've figured out I can work best. Yes, I have certain expectations from my guys – this is the end-product and this is how it is supposed to look like. As long as the flavour, the presentation, everything else is exactly what I want, how you get there, you have to figure it out yourself. I only can give you directions but you have to find your own comfort zone and you have to find the way how you can best achieve that result.

(Hans, IN2.9).

That's always in the setup of the kitchen. When you set up your kitchen, you always try to have things in order. And that order can make a lot of difference on the timing of your dish. So always I have in front of me in a row exactly what I need for each plate.

Researcher: And in a certain sequence?

Exactly. My sequence though. Because [the other apprentice] has a different one. So we all order it around differently. But it all ends up looking the same.

(Teresa, IN2.6).

What these voices of apprentice chefs are indicating is the value of learning from multiple masters: apprentices can accumulate a portfolio of skills and techniques using the practical experience of others. However, part of the formative or transformative process of learning is the ability to determine what works for self; a self who is agentic and intentional but aware that actions operating in a social world have consequences for others. Following MacIntyre (1999), to commit to a living curriculum that is personalised yet communitarian in character is to recognise a relational dependency with others that is still emancipatory. Dreyfus observes that learning from multiple masters can destabilize apprentices; the naïve

imitating of other practitioner styles no longer works: they must start to develop an individual style of their own, thus evolving towards mastery (Dreyfus 2001, cited in Hager & Halliday 2006: 225). One apprentice from my case study tells it in the vernacular of his profession:

> I wasn't sure about what other ways you could become a qualified chef. I don't think you can become a qualified chef without going through an apprenticeship. If I had just decided to go through [being a] kitchenhand and then cook throughout my whole life … then I would just be a cook … but not really a chef. Cooks, you can cook and stuff, but as a chef, you also have to [be able to] taste a dish and straight away know what ingredients are missing (Stewart, IN2.7).

4.4   Acting as if apprenticing anew

The actions and talk of developing musicians in Section 4.2 and apprentice chefs in Section 4.3 from my two case studies provide perspectives on what it means to be a novice joining a professional practice. Common characterisations of apprenticeship suggest increasing accumulation of expertise, levels of participation and accountability in the domain-specific cultural and social practices of that profession (Billett 2001b; Lave & Wenger 1991; Wolek 1999). An alternative view, illustrated by my empirical findings in this chapter, suggest that apprenticeship (or the more active form 'apprenticing') may be more a mode of learning rather than only an entry-level mode: one more oriented towards the day-to-day activities of encountering difference and engaging in discovering uncertain futures (Guile & Young 2001; Pedersen 2008).

When difference is heightened between a master and novice such as in mentoring relations, both may shift into apprenticing mode with the value of dialogical interactions strengthening the quality of learning for both (e.g. the 'two-way learning street' observed by Steve, the brass mentor). This form of guided support can also expand beyond interpersonal relations to multipersonal relations such as the support Teresa received from Ben the sous chef, Jeremy the executive chef and Alison the fourth-year apprentice to teach her their interpretation of the way to prepare the entrée special. As Teresa said: 'it really depends on the character of the person as to how you learn … it's always a group effort in how I get the end

result' (source: IN2.6). For Jeremy who still must keep the interests of the workplace in mind, he comments: 'You've really got to nurture [the apprentices] … It's just nice to see that the effort you're putting in, something's coming back out of it' (source: IN2.5).

As others have conceptualised (Bokeno & Gantt 2000; Daloz 1999; Darwin 2000), dialogical mentoring and other forms of guided learning are acts of care among practitioners who recognise that a practice must be lived through the actions, talk and judgements of its members. The purpose is not only to enact and uphold the standards of that practice so that instrumental ends of practices, workplaces and organisations can be satisfied. For a practice to thrive and endure, practitioners must share a collective accountability to steward its traditions for entering members; they also contribute to the dynamism of practice by challenging practice at its fuzzy boundaries. The value of participating in collective work is that practitioners constantly encounter difference in each other and in their collective situations. This creates opportunities to dialogically move 'toward the new apprenticeship' by re-viewing practice with novice eyes and enacting the poietics (from Greek *poiesis* to create) of practice as if for the first time (Shotter & Katz 1996).

Particularly in the case of novices who are at the cusp of adulthood just forming their worthy dreams (Daloz 2003), becoming a practising professional also involves processes of identity construction that must be negotiated and produced in an ongoing process (McLeod & Yates, cited in Stokes & Wyn 2007: 500). Not only are these novices searching for occupational identities (Kram 1988) where they can find roles that fit with others within their work contexts and professions. They are also searching for forms of social identity (Jenkins 2004) and learning the possibilities of multiple subject positions or subjectivities in the complexity of multiple lifeworlds (Chappell et al. 2003; Stokes & Wyn 2007). Acting connectedly with others through forms of guided learning can help navigate the 'apprentice', that remain in all of us, to emerge out of the wilderness.

4.5   Summary: Acting together at work

In this chapter, my analyses of developing orchestral musicians and apprentice chefs at work have provided several perspectives on what it means to learn from interacting with experienced others. In these cases of novices who are commencing work for the first time, they are not only joining new workplaces: they are learning to become practising professionals. I contend that this means they are also learning how to live a relational curriculum with others, one that involves the mutuality of guiding/teaching and receiving/learning. Conventional learning literature offers productised and linear conceptualisations of the development of learning that privilege disciplinary skills, the experience of time, the authority of role labels and the process of transfer (Dreyfus & Dreyfus 1986; Eraut 2004b; Holton III & Baldwin 2003). Such concepts are not unimportant in characterising the human condition since together, these concepts provide a perspective on learning that favours the same, the explicit, the visible and the bounded – important for the affinity, affiliative and community-creating nature of humans in the social world.

But humans are also intentional: acting, thinking, talking, judging and *changing* beings. They encounter a diversity of perspectives, approaches and options when interacting with others through talk and actions and judging which contextual factors should be prioritised or agreed upon when deciding on future action. This diversity forces people to make explicit their reasons for favouring one option over another and it also causes them to reflect and challenge their own rationale for acting in certain ways. Some researchers have made a distinction between vertical and horizontal discourse (Bernstein 1999) and vertical and horizontal development (Griffiths & Guile 2003). This chapter has illustrated how the *vertical* perspective as viewed by the contributions of self, discipline, skill, outcomes, roles and hierarchy might productively be complemented by a simultaneous *horizontal* perspective that encompasses other, transdiscipline, embodied competence, context and relations. It is not that vertical or horizontal development should reify one over another, but that both could be experienced in productive ways that are meaningful and helpful to understandings of learning.

Experienced practitioners in both my two case studies mentioned the importance of working side-by-side with other practitioners. 'Side-by-sideness' evokes a visualisation of horizontal space rather than the vertical hierarchy of teacher-student relations. This connects to early conceptual work that scholars of Positive Organisational Scholarship (Cameron et al. 2003) at the University of Michigan Business School are exploring on sideways organising (Guile & Young 2001; Sideways Organizing Research Microcommunity 2008). In an unrelated but seemingly parallel manner, this approach to 're-viewing' was used by Collins and Rainwater (2005) to look sideways at the corporate transformation process of Sears Roebuck, an American department store. The Sears change management story was originally told by Rucci et al. (1998) and characterised by Collins and Rainwater (2005: 26) as 'a tale of heroic deliverance'. Collins and Rainwater then proceeded to re-story it as a tragedy and as a comedy, highlighting the complexities and ambiguities of organisational life.

In a similar way, my analyses of musician work and chef work are intended to reveal the complexities of acting in concert with others that lie below the surface of visible actions. In this chapter, Chapter Four, my focus of analysis has been on guided *acting* with others and how such actions influence shared understandings of learning. In the next chapter, Chapter Five, I discuss how learning is also relationally choreographed by *talking* between and among practitioners in ways that structure, gesture and anticipate action and lay the foundation for future inferences and judgements that are covered in Chapter Six.

Chapter Five
Choreographing Conversations: How Groups Relate by Talking Together

'converse' from Latin *conversare*, to turn together, to turn about with.

Purpose and flow of this chapter

At work, talk and text are natural communication tools used automatically and often unconsciously to achieve other outcomes, usually for functional or instrumental purposes such as making decisions, reaching consensus or documenting results. Even in researching work and learning, talk through interviews and analysis of texts are the mechanisms most used to determine findings as a basis for commentary about the phenomenon under study. The purpose of this chapter is to focus on the portion of my research that investigates how 1) talk as ways of turning together between people, and 2) text as a special case of conversing between author and reader, shape the relations that develop within groups and how these connections influence shared and emergent understandings of learning. I analyse the spaces between talk (talk-in-interaction) and connectivity of text using the metaphor of dance and choreography (Rowe 2008; Russell & Ison 2004) to demonstrate how 'talking' connections as discursive practices generate patterns of interaction that shape collective learning.

Underlying this analysis and consistent with a major theme of my thesis, is my deliberate orientation towards using research methods that retain the importance of context sensitivity. I analyse the micro-talk of particular conversations since at the level of utterances, they *shape* context through the sequencing of prior talk activity and *renew* context in structuring how subsequent actions can be understood in talk (Drew & Heritage 1992b: 18). But my purpose is to examine the 'contextual sensitivity of language use with the focus on talk as a vehicle for social action' (Drew & Heritage 1992b: 16), so my analyses concentrate more on the nature of group talk and discourse situated in organisational settings (Arminen 2000; Boden 1994; Boden & Zimmerman 1991; Heritage 1997; Thornborrow

2001) rather than methods typically adopted by scholars of Conversation Analysis (Atkinson & Heritage 1984; Psathas 1995). I am interested in how talk and text shape understandings of collective learning as they affect the achievement of work in organised settings. Yet as my findings suggest, learning involves the social interweaving of work and life (Elias 1970) and both are inextricably linked in the search for meaningful action.

As conceptual framing for this chapter, I first discuss in Section 5.1 how approaches to discourse analysis help to explain discourse as social action and practice; in particular, the role that discourse as a resource has in controlling access in organisations through the voices that are heard or not heard. Section 5.2 provides a discursive exemplar by illustrating how orchestral musicians creatively 'dance the talk' of becoming professional. The extract analysed of two researchers and two musicians 'being in an interview' is contextualised at the micro movements of talk-in-interaction as well as viewed in the broader interpretive frame (Goffman 1974) of an orchestra rehearsal that all four experienced as observers or performers. Section 5.3 discusses a second exemplar of how a group of program services staff in a corrections centre 'position' their talk about helping drug offenders. How participants stake out and indicate their expertise and inter-personal interests reflects another pattern of relational interaction through talk. Such positionings illustrate the political and dominating influence of competence and ruling relations in relating to others through talk.

Section 5.4 discusses the role of text and textual practices as artefacts and processes that structure additional forms of social practice and action. Using illustrations from both exemplars, I discuss how the incompleteness of texts in organisations can obscure yet gesture to new collective interpretations involving additional organisational groups not initially involved in the original verbal participation. Finally, Section 5.5 summarises the themes in this chapter by drawing some interim implications for discursive practices and its contributions to collective learning at work.

5.1   Group talk at work: D/discourse

Scholars of discourse analysis suggest that there are various levels or dimensions at which discourse can be studied. Gee (1999) names the study of language-in-use as 'discourse with a little d'. Here the nuances of words and phrases used, the linguistic structures and the protocols in which participants take turns or signal actions and desires through talk characterise this level of discourse. Gee (1999) reserves 'Discourse with a big D' for a broader notion that adds non-language associations of valuing, interacting, thinking and to a significant degree, notions of identity. This level of Discourse recognises the sociocultural nature of talk with talk as inherent 'participation frameworks' (Goffman 1981) for social life and practice (Sarangi & Coulthard 2000).

 In fact, there is an intimate relationship among Discourse, identity, context and practice. For Gee, 'D/discourse analysis must have a point [because] language has meaning only in and through social practices' (Gee 1999: 8). Meaning is not embedded in language itself but rather created and negotiated to make sense of the practical requirements of everyday work and life. So 'words have meanings only relative to *choices* (by speakers and writers) and *guesses* (by hearers and readers) about other words and *assumptions* about contexts' (Gee 1990: 84, italics in original). Fairclough (1989; 1995) suggests that there are three analytical dimensions that map to each other in studies of discourse: analysis of language texts, discourse practice and discursive events as instances of sociocultural practice. The combination of these analytical dimensions provides insights not only on the practical aspects of institutional life, but importantly, into political and ideological aspects that govern who has access, who has voice, who is heard, and by omission, who is not heard.

This domain of critical discourse analysis (CDA) as evidenced by the work of Fairclough (1989; 1995; Fairclough & Wodak 1997), Gee (1990; Gee et al. 1996), Mumby and Clair (1997), Kress (1988) and others, provides an important lens through which we can understand group talk. When groups talk, factors such as who has power (e.g. positional authority or contextual expertise) or what group

dynamics are at play often structure the nature and direction of emerging talk. Where there is dialogue, the content of the dialogue is influenced by interpersonal relations between the speakers and the extra-personal situations in which both are located. These are not necessarily immanent characteristics but are shaped dynamically as the dialogue progresses. Bateson (1972) goes further to suggest the concept of metalogues as 'conversations about some problematic subject' that impose a logic of relationships further shaping the interplay of dialogue. In examining the talk of orchestral musicians (Section 5.2) and an interprofessional care team (Section 5.3), I highlight the interconnectedness of these D/discourse concepts as choreographing the relatedness of talk among people at work.

5.2 How orchestral musicians dance the talk of becoming professional

During the fieldwork for my case study on developing and professional orchestral musicians at SymCo, one of my research data gathering days included the opportunity to observe musicians working together during an orchestra rehearsal in preparation for a public concert later that evening. After the rehearsal, I and a co-researcher conducted a series of interviews with some participating developing musicians. My first exemplar is taken from one of these interviews with two musicians Harry and Anna.

Exemplar 1: More than 'being in an interview'

Harry and Anna are both members of the SymCo development program (DEV1) selected to participate individually through competitive audition. They come together only for the rehearsals, training sessions and to perform concerts for schools and the general public that, over the duration of a program year, consists of approximately forty days of interactions. Harry is a trumpeter, who lives in another Australian state, graduated two years ago, has ongoing work with a local orchestra in that state through casual employment and is participating in the development program for the second consecutive year. Anna is a violist living locally, still completing her tertiary studies and has no prior casual work or development program experience. Essentially, Harry and Anna meet for the first

time in this interview by virtue of scheduling convenience, even though they had nodding acquaintance across the orchestra floor in prior program interactions.

Harry and Anna knew they were participating in an interview and most likely, we as researchers would initiate questions that they were expected to answer. Typically we would ask and they would answer; they would speak and we would listen. Certainly there are pre-established procedural understandings governed by commonly-understood social protocols that shape people's understandings of turn-taking in everyday conversation, but particularly in how interviews typically proceed. Often in social science research, 'there is a failure to appreciate that interviews are interactional occasions conducted through language, and that certain features of talk-in-interaction have consequences both for the interviews itself and for the nature of the data thereby collected' (Wooffitt & Widdicombe 2006: 48). As Schegloff also observes, how people manage the talk as 'being in an interview' has less to do with announcing the setting as a type of genre ('the interview') and more to do with the salience of talk-in-interaction among participants or the context of prior moves that shape what subsequently follows (Schegloff, cited in Drew 2002: 479).

Openings as invitations to dance

At the beginning, I followed a predictable protocol of trying to set participants at ease by asking questions about their background and directing the turn-taking sequence:

Extract 1: IN1.7
Harry=trumpet player; Anna=violist; R1=researcher; transcription conventions in Appendix 4.
```
1    R1:     If we just start with a couple of points about your background.
2            Where are you in your career and like why was DEV1 interesting …
3            for you to apply to?
4    ((R1 turns to look at Harry))
5    Harry:  Ohhh all right. I did four years of study at the (music school,
6            thereafter MSA). Before I went to MSA, I sort of had no
7            idea what I wanted to do with my trumpet playing. I was always a …
8            I guess my teacher must have thought I was a pretty good trumpet
9            player and I didn't know what sort of career opportunities were out
10           there for trumpet players I always thought probably imagined that
11           I would come out and maybe do a teaching degree, maybe be a
11           music teacher?
12   R1:              [Hmm]
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13	Harry:	But whilst at the MSA, I met some .. pretty inspirational teachers
14		that really strongly encouraged me and showed me that there was
15		professional work out there just playing, playing in orchestras and lots
16		sorts of things. So I did a three year undergraduate at MSA with a
17		fourth year honours. I did DEV1 for the first time last year so this is
18		my second year here doing it so I really enjoyed it last year and
19		decided to come back. It's .. I think it's a really good .. bridging
20		point between .. studying and professional work. Studying at MSA
21		or playing in a university orchestra, you're, you're playing with other
22		students and you rehearse on a student basis, like you do lots of
23		rehearsals. Whereas DEV1's treated lot more like real work … you
24		only do a few calls and are expected really know your stuff when
25		you rock up to the rehearsal. It's a lot like real work like[---]
26	((continues for 37 seconds))	
27		[---] that's what I really like about DEV1 you're sitting next to a
28		professional musician that's got, like in my mentor's case this time
29		[he's] got thirty years' experience of doing the job. He's played,
30		you know, the piece we're playing like a hundred times before
31		[((laughs))]
32		[((all laugh))]
33		And he knows all the problems with it and how to solve them and
34		just the sounds that's required. …. I always think music is like
35		learning a new language. Like it doesn't matter how many
36		books you read, it's a lot easier to pick it up if you just hear
37		someone that actually just makes that sound. So having a professional
38		next to you with a great sound is a lot easier to just copy them rather
39		than trying to work that out with a whole lot of students.
40	R1:	Yes. …. Anna, what about you? ((R1 turns to Anna))
41	Anna:	My background. I've, um, I've been playing the viola for only three
42		years and I'm a second year B.Mus student with (*music teacher Ray*)
43		at the (*music school, thereafter MSB*). I played violin, I've
44		been playing violin since I was five and did - went onto to do
45		something else at university and then someone gave me a viola
46		and I picked it up and then I've been all systems go at MSB with Ray.
47		He is I think sort of the director of the DEV2 program?
48	R1:	[Yes]
49	Anna:	so I knew about DEV1 from very early on when I picked up the viola.
50		And I mean, my experience at MIB has been fantastic in terms of
51		orchestral...learning but it is only playing with students and
52		throughout my whole learning as a violinist when I was with the
53		(*local community orchestra*) I always found …I do remember
54		specifically that I learned the most as a violinist when I was sitting
55		next to my violin teacher in an orchestra as a young child … and that's
56		why people tell me … that has been, you know, the crux of my
57		learning as a violinist, so I knew that DEV1 would be something
58		very important for me to do .. and the great thing about it is .. in
59		string section umm you're playing with different members of the viola
60		section it's not always the same person,
61	R1:	((nods)) [Hmm]
62	Anna:	so you're actually getting to know all these different professional
63		violists in Sydney. You know what their playing's like and what their
64		ideas are …. so it's not just one, this is the one right way of playing it
65		as might be the case of me just learning when I work with Ray.

As a well-recognised way of participating in this talk of being (in) an interview, I as researcher was asking Harry and Anna to contextualise their lives in the past so I could understand their present. What emerges from this opening as invitation is a rich collection of themes shaped by what Harry chooses to talk about as his background – the unexpected inspiration of teachers who changed Harry's direction in life, the differences between how Harry learns with students compared to how he learns with professionals and the importance of modelling and using all the human senses to interpret music experientially.

The way Anna chooses to answer when it is her turn to respond is to mimic her details in a similar format to Harry's response. She provides the details of her musical education (line 42), moves on to how she came to know about the development program (lines 47-49) then provides her analogous example of why sitting next to a professional is beneficial for learning (lines 54-55), connecting to Harry's previous point (lines 37-38). Through talk, Anna is (re)interpreting the personally-significant events in her life in a way that confirms the importance of Harry's assertions about learning with professionals, but as she experiences it through her own participation in the development program and in her earlier life.

However, there are other characteristics in Anna's talk that suggest her early perception of being junior to Harry in terms of the extent of her experience or exposure relative to Harry's. For example, how she's *only* been playing the viola for three years (line 41), is a *second-year* (line 42) B.Mus. student (tacitly acknowledging an in-progress stage of studentship compared to Harry's graduate status) and reinforcing Harry's point of the value of learning from multiple others rather than *just* learning when she works with her music teacher Ray (line 65). Already in this opening dance of talk (which I as structurer of turns also helped to shape), there is evidence of positional roles and visibility of voices that are being relationally constructed.

Extending the invitation: Shall we all dance?

Two minutes later, Harry makes an observation that changes the mode of participation among the researchers and musicians that influences subsequent interactions.

Extract 2: IN1.7
Harry= trumpet player; Anna=violist; R1=researcher

1	Harry	But for me, I mean I probably get the most out of it in <u>rehearsals</u>
2		actually sort of trying things different ways and having someone
3		sitting there given me instant feedback=
4	Harry:	You don't … do a concert and then …phone the audience afterwards
5	R1:	We observed that. We were rapt … listening … every break… mentors
6	Harry:	[Yeah……………yeah]
7	R1:	just <u>saying</u> something
8	Anna:	[Yeah ((nodding))
9	R1:	even if it was a short phrase or demonstrating something that.
10	Anna:	[yeah] [yeah]
11	R1:	It sounded like it was incredibly valuable=
12	Anna:	=The rehearsal <u>is</u> the best
13		part I think. It's where everyone's heightened, thinking this new
14		music, we've got to do it right. It's the time in the string section when
15		in particular, it's our chance to find out what actually happens you
16		know. The leader is writing in the bowing, we've all go to know
17		what's going on and we can … whereas in concerts, I mean in K-2
18		(*kindergarten to year 2*) schools, we sort of .. we just sort of
19		start doing concerts
20	Harry:	[yeah]
21	Anna:	over and over again. But it's always fun, especially the wind and brass
22		((smiles)) you know have a little different example for us all to listen
23		to ((chuckles)) I mean it's a very enjoyable environment. ..
24		But the rehearsals, professionally I think, is one of the best
25		experiences.
26	Harry:	[Yeah….. I find I get a lot just watching how the members
27		of the orchestra, the mentors just go about their day-to-day life. Like
28		Like what they do before the rehearsal, where they go afterwards
29		[((all laugh))]
30		<u>How they warm up, how they prepare</u>, how early they get there,
31		what sort of attitude they come in with to a rehearsal=
32	R1:	=Yes.
33	Harry:	=how they treat the conductors, how they treat their peers. All these
34		sorts of things
35	Anna:	[which coffee cup ((inaudible))]
36	Harry:	[you can only learn ((chuckles))
37	Anna:	[((laughs loudly))]
38	Harry:	you can only learn on the job …. no-one can tell you .. those
39		sorts of things.

What happens in Extract 2 is that the word 'rehearsal' has become a specific contextualisation cue (Gumperz 1972). Rather than its context-in-use in Extract 1 (line 23) representing the routineness of repetitive practice, 'rehearsal' in this context represents a shared experience that all four participants in the interview recently participated in. The recognition of the shared experience is exemplified by non-verbal gestural movements (head nodding) and verbal confirmations (multiple 'yeah's) as if all are remembering or re-living the morning experience. The shareability of this experience also provides a cue and an opportunity for Anna to explain how rehearsal time for the strings section leads to productive activity: she reflectively interprets, in particular for the observer-researchers, the meaning of activity enacted by the performers (lines 14-17).

Harry's subsequent extension of Anna's points shows how talk can be co-generative based on inferential understandings or shifts in frames of reference. For example in lines 26-28, Harry still uses the anchoring rehearsal event but re-directs the talk to indicate his belief that the activities in and around the place/time are highly relevant to understanding what it means to behave like a professional. He is essentially 'talking out' his interpretive schema of rehearsal activity meanings – a process Goffman (1974) described as frame analysis. Harry not only reiterates the benefit of working next to professionals (as evidenced by his similar talk in Extract 1) but now introduces an important new contextualisation cue for subsequent talk, namely the tacit nature of this form of learning – 'no-one can tell you those sorts of things' (lines 38-39).

Two-step or tango?

Approximately five minutes later, Harry and Anna having 'learned' the protocol of this talk and established communicative inferences about each other based on understandings in earlier talk, they start to collaborate to co-tell stories that highlight the differences between successful soloists and successful orchestra musicians:

Extract 3: IN1.7
Harry= trumpet player; Anna=violist; R1=researcher; R2=researcher

1	R1:	[---]People were sort of saying well, the characteristics or the success
2		factors are quite different. What would you say would be some
3		of those success factors.. you know, then to aspire to, for a
4		successful orchestral musician?=
5	Harry:	=For an orchestral musician?
6	R1:	Just <u>fitting in</u>?
7	Anna:	Yeah, I mean .. Being alert to see what's going on, to see what's
8		expected of you so identifying the people above you and who you need
9		to. I mean you can't stick out obviously but you need to support the
10		sound, so you need to be technically <u>leading</u> as such even if you
11		aren't the leader. I mean, when I was watching the Vienna
12		Phil[harmonic], every single violinist was leading, they were
13		altogether, they were on their same part of their bow. I mean that IS
14		the ideal thing but I suppose it depends on what level you're at. But
15		yeah umm, I would aspire to be someone who'd be as good a player
16		as the leader of the section. So sort of play together almost as if she
17		couldn't hear that there were more than two people playing.
18	Harry:	I think you really need much better social skills to be an orchestral
19		musician. It doesn't matter how good you are if you've got to turn up
20		for work every day=
21	R1:	=Yeah
	Anna:	=Hmmm
22	Harry:	and sit next to those two people on either side of you, and
23	Anna:	[((laughs))]
	R2:	[Hmmm]
24	Harry:	<u>You don't get along</u> ((smiling)) you know …..... it's hell!
25	Anna:	((laughs)) It's the same with the strings you know that people talk
26		about which section of SymCo isn't a very happy section.
27	R1:	Really?=
28		=And it affects=
29	Harry:	=it affects…
30	Anna:	it affects the rest of…
31	Harry:	[It affects the way they play!]
32	Anna:	Yeah! If they're socially and professionally not happy
33	Harry:	[I..<u>I</u> find it hard playing if
34		the person next to me, I don't like them or they don't like me, we don't
35		get on very well, you don't play well together either. You need to be
36		[to] have good social skills and be friendly ((chuckles))
37	Anna:	[Hmmm]
38	Harry:	Whereas a soloist you can get away with=
39	Anna:	((laughs))
40	Harry:	Being really arrogant=
41	Anna:	=Well no-one's going to know as a soloist how
42		good you are at following orders or working together with other
43		people. But it's you know, what makes you a great person you know
44	Harry:	[Yeah].
45	Anna:	same kinds of things. If you're too much in one area, this other part is
46		lacking [---]

In finishing each other's sentences about the sociality of working together, Harry and Anna demonstrate a trust that has emerged from this shared dance being no longer a 'typical' interview. This trust is formed from each other knowing what it means to participate from *within* orchestral musician practice – Shotter's (1993) 'knowing of the third kind'. In some respects, Harry and Anna could co-narrate an interlaced story (Norrick 2005) using their shared experiences (a schools concert, a rehearsal) as participants in the DEV1 Orchestra, although they might not have recognised that possibility until they interacted verbally through the mediation of this interview.

Towards the end of the allocated time, the group starts discussing whether orchestras debrief after performances as a learning mechanism. Anna tacitly takes over the role of the interviewer as both Harry and Anna search to understand something new about how their respective instrument sections work.

Extract 4: IN1.7
Harry= trumpet player; Anna=violist; R1=researcher; R2=researcher

1	R1:	[---]but after when the concert's <u>done</u>, is there any debrief or talking
2		with each other about how did that go?
3	Harry:	Yeah normally, but mostly but we'll do that by going to the pub=
4	Anna:	=going to the pub
5	((all laugh loudly))	
6	Harry:	The … people who run DEV1 are really good about it; they'll
7		always survey you but that's not so much on the playing of it … it's
8		more on the DEV1 process and things like that - would you prefer to
9		have the rehearsal one hour later and you know things like that.
10		Mentors are great, like they'll always come out and talk to you about it
11		and talk to you about it and say, lots of anecdotes about when that
12		happened to them.
13	Anna:	[((laughs))]
14	R2:	Do the violas debrief?
15	((continues for 1 minute))	
16	Harry	[---]Yeah exactly. I find the debriefing like in any gig you play
17		again one of the places you learn a lot of things …... which you
18		probably don't get at uni much.
19	Anna:	Yeah, that is true.
20	R1:	And you sort of take that onto your next concert, I guess.
21	Harry:	Exactly. Everything you learn, you can learn something
22	R1	[Yeah, yep]
23	Harry:	for the next time=
24	Anna:	=Do you have the same mentor every time?
25	Harry:	No, not at all, we have different people all the time.
26	Anna:	[Do you?]

27	R1:	Whereas, like you've got more of a fixed mentor for the whole year?
28	Anna:	No we have different mentors.
29	Harry:	I guess the viola section's a lot bigger than four trumpets.
30	Anna:	That's right so I'm not going to see the same person twice.
31	Harry:	[Actually, this year, I've had
32		there's been pretty much only (*Harry's mentor*) involved ((chuckles)).
33	Anna:	Okay, so
34	Harry:	[for pretty much the whole time. So I think I had one with
35		(*another trumpeter*) so it's actually been only two mentors which
36		I find actually good because they can hear how you're progressing
37	Anna:	[Hmmmm]
38	Harry:	they know what they've already said to you. And I know with
39		(*Harry's mentor*), next time you come up, bring this and we'll play
40		through this=
41	Anna:	=That sounds great
42	Harry:	=or bring me this, get a few excerpts out
43		and practice those. He really follows along and see what I'm up to in
44		(*Harry's home city*) and he's been great.

Here, the distinction between who is questioning and who is answering has become unimportant by this point in the interview. New learning is occurring among all four participants created by a shared collective curiosity about the experience of being mentored. This dynamically shifts the role of questioner among R1, R2 and Anna with all participants contributing to shaping the direction of subsequent talk through the nature of their responses as answers or further questions. All are striving to learn through a shared common experience of group talk.

Further as Extract 4 particularly demonstrates, the human experience of relaxing by going to the pub (professional musicians being real people too!) and the generosity of mentors in sharing their wisdom by recounting crises or humorous events learned through travelling their own paths, illustrate not only how professionals behave at work, but how work is connected to life and people connect to other people. During the interview, the interpersonal relations between Harry and Anna changed through their talk-in-interaction. Anna's perception of 'juniority' as evidenced by her Extract 1 talk has become irrelevant by Extract 4 where she confidently talks her practitioner knowledge of how mentors behave in the viola section. Further, the shared 'being there at rehearsal' experience among performers and researchers allows a form of relational shorthand to occur through

the talk (e.g. the remembered common actions of mentors prompted by my comment 'your mentors' in line 5 Extract 2). Enacted through the dance of talk, the dialogues and polylogues that occur become the basis of a meaningful common experience that changes the tenor of the conversation beyond being *just* an interview consisting of research questions and answers.

Both Harry and Anna have essentially made a 'discursive commitment' (Shockley 2006) to each other visibly through their participation in this interview, but also invisibly through what they might now recognise as their emerging professional practice as orchestral musicians. Such revised understandings will most likely reshape the way they respond to each other the next time they meet within a DEV1 Orchestra context, or in future interactions as musician practitioners in social or professional contexts in life. Often such understandings are not only shaped by shared participation in a common *professional practice*, as in this first exemplar with orchestral musicians. They are also influenced by *institutional concerns* structured by shared participation as members of a common *organisation* oriented towards achieving certain goals. The second exemplar discussed next illustrates how competing competencies oriented toward institutional concerns can be revealed as social practices within talk-in-interaction.

5.3 How programs staff position their talk about helping drug offenders

Despite common myths about prisons, modern day correctional centres aim to rehabilitate rather than incarcerate offenders, so that they can productively re-integrate into the community. Critical in this process is the program of care provided by specialist professionals such as alcohol and drug counsellors, psychotherapists, parole officers, education officers and medical staff. I investigated the learning experiences of staff working at CorrCo, a minimum security corrections centre that had been in pilot operation for one year. Staff were being asked to work differently (collaboratively within interdisciplinary teams) and innovatively (the therapeutic model designed by the director of the centre had not been previously implemented and processes/procedures were being 'designed

on the fly') in pursuit of the collective goal to rehabilitate chronic drug offenders, who at this centre are all male.

The extracts selected from this exemplar come from an observation of a team meeting that I and a co-researcher attended and taped with the participants' permission. In contrast to Exemplar 1's musician interview talk, Exemplar 2 represents the talk-at-work among programs staff in a working session chaired by Amy, the director of the centre. In attendance besides the director, are alcohol and drug (AOD) counsellors (2), psychotherapists (2), education officers (2), a parole officer (1) and a medical officer (1).

In traditional prison environments, professional functions are relatively self-contained and sequentially arrayed with coordination at key interface points. For example, offender medication and health status recorded by medical staff (doctors, nurses and psychiatrists often located within a separate reporting hierarchy from programs staff) are kept confidential from counsellors through 'chinese walls'. Counselling typically occurs early during an offender's treatment program whereas education focuses on the attainment of vocational skills and/or employment when the offender is ready to return to the community. Parole has a post-program functional role, that of monitoring and supervising offenders once they re-integrate in the community. However at CorrCo, all programs staff are being asked to work integratively and simultaneously with offenders for the benefit of offender care. The weekly programs integration meeting is one example of a new team process implemented by Amy.

Exemplar 2: New ways of working – the weekly programs integration meeting

The participants in the meeting arrive and take up seats in comfortable sofas or armchairs that are loosely organised in a U-shape configuration. Adam, the medical officer, arrives clutching a large stack of manila folders that contain the details of offender medical histories; he takes up a separate place at the only table in the room and starts organising his files. At the beginning of the meeting, Amy collects agenda items for discussion from the participants and then suggests

sequencing the meeting so that updates on offender status are covered first together with Adam, then remaining matters such as program activity status, staff resourcing and any other programs business could be discussed without requiring his attendance. Further, she sets a meeting time limit of one hour given there is a joint event with offenders immediately after the meeting concludes.

Thus through her verbal openings in setting the agenda for the meeting, Amy has already created an expectation that the business talk of participants will be to share information, use their professional expertise and knowledge and focus on organisational outcomes (Holmes cited in Holmes & Marra 2005: 194). While participants do not know exactly how the meeting will proceed, they have reasonable anticipations of the type of talk, knowledge to be shared, their own role and the level of participation expected. As Amy explained to us prior to the start of the meeting, the purpose of the integration meeting is to share information regarding offender treatment status so that there is group awareness and commitment to rehabilitating the offender holistically, even though each offender has an officially-assigned case coordinator (usually a psychologist or alcohol/drug counsellor) who knows the offender's detailed behavioural history.

Showing ways of knowing through talk

Extract 5 illustrates a portion of the meeting where the group is discussing the behaviour of Offender B who has just been diagnosed with paranoid schizophrenia for the first time in his life by the centre psychiatrist. Offender B is also having unwanted sedation effects from his medication that is interfering with his ability to work productively at a job that forms a critical part of the progressive process to re-integrate into the community.

Extract 5: G3.2
Adam=medical officer; Chris=psychotherapist; Kate=psychotherapist; Tara=parole officer
1   Tara: [---]I said tell me about how you are taking your medication? He said
2   he won't take it in the morning because he doesn't want to be
3   bummed for work. He's taking it at night and um he asked me does he
4   have a choice in stopping the medication? I said he <u>does</u> have a <u>choice</u>
5   in .. asking .. the psychiatrist whether he can stop the medication.
6   He got a little bit agitated like you know, we've got control?
7   Adam: Yeah, hmm.

8	Tara:	[I said it is <u>very</u> important that <u>you</u> take the advice of the
9		psychiatrist here and whatever he says, if you talk about coming off of
10		it or whatever and (*the psychiatrist*) says it's okay then so be it but if
11		he says you need to maintain that while on this program, you'll <u>have</u> to
12	Adam:	Hmm.
13	Tara:	[you know?]
14	Kate:	Especially when he's in the community!
15	Adam:	He's supposed to have a split dose [but he's been… because it sedates
16	Kate:	[Hmmm]
17	Adam:	him during the mornings, he's trying to take it at night time?
18	Chris:	He's taking one lump//all of it?=
19	Adam:	=He takes 800, so he takes 3 and 5, 3
20		in the morning, 5 at night time. Now he's taking 8 at night time and
21	Chris:	[no wonder it's
22		knocking him ((indecipherable)) the next day]
23	Adam:	[3 in the morning but if he doesn't take that dose, he can't sleep and
24		he's quite agitated. So I said, I said look mate .. 'cos he's only just
25		coming to terms with the fact that he has schizophrenia even though
26		he has had these symptoms all his life, this is the first time he's been
27		sat down and said you have schizophrenia, this is your illness. And he
28		doesn't like the fact that he's going to have it for the rest of his life and
29		that he has to take medications for the rest of his life and the stigmata
30		that comes with schizophrenia.
31	((silence for 4 seconds))	
32	Adam:	It's a catch-22 and I said that to him, mate, [---]
33	((Adam continues for another 12 seconds))	
34	Chris:	How long has he been on it? Only since he's been in custody?
35	Adam:	Since he's been in custody yeah. Since he was brought off his
36		methadone=
37	Chris:	=which is how long? a couple of months?
38	Adam:	Couple of months, four or five months. But he's on a fairly sizable
39		dosage.
40	Chris:	[Yeah, he's done it hard ((inaudible))]
41	Adam:	[and it will have sedating effects, he needs it, you know? so]=
42	Chris:	=Yeah.
43		I was going to say, could..like..is there any possibility that
44		(*the psychiatrist*) could review his medications and he could try one of
45		the other?=
46	Adam:	=Yeah absolutely=
47	Chris:	=anti-psychotics? Like (*identifies three*
48		*alternative drugs*)]
49	Adam:	[Hmm, idealistically an intra-muscular like (*identifies*
50		*another two drugs*)]
51	Chris:	[yeah, yeah, or Depo yeah]
52	Adam:	But it's all…with all psychometric meds, it's all [side-effects versus
53	Chris:	[side-effects versus
54	Adam:	effect]
55	Chris:	[effect]

In Tara's role as parole officer, she is primarily concerned with offender behaviour in the community and the actions of offenders as they affect others,

including employers, in the community. In recounting her conversation with Offender B, Tara wants to communicate an alignment with, and explanation of, Offender B's concerns about the option to stop his medication so he can be more alert at work: 'he got a bit agitated like … we have control?' (line 6). It is relevant to Tara's role and job as a parole officer because if Offender B is more alert, he is more likely to remain productive at work, his employer will be happy to continue employment and Tara's supervisory monitoring process can proceed more smoothly.

But Tara's talk also shows how cognisant she is of not overstepping her parole role by countermanding or saying something that might conflict with the course of action that the centre psychiatrist has already prescribed (lines 8-11). She is quick to seek validation of the correctness of her talk with the offender from Adam who represents the medical side of the centre (e.g. her emphasis on the importance of taking the psychiatrist's advice in line 8; her request for validation from Adam embodied in the query '*you know*?' in line 13). What Tara's talk shows is a personal and professional awareness of the privileging of medical authority over her own profession and identity as a parole officer. This awareness has been shaped by prior commonly-understood practices in healthcare settings that signify the high status of doctors within the hierarchy of professions and the power that doctors have to prescribe medicines that could have serious consequences for the human body.

What follows is an extended dialogue between Chris and Adam. Their talk shows a mutual understanding of the specialised knowledge in their related professions – psychotherapy and medicine – that is, how certain medications used to treat mental illness have certain behavioural effects. When Chris raises an alternative course of medicine that the psychiatrist could prescribe (lines 43-45), Adam's considered response and ongoing engagement with her about options and likely side-effects is driven by shared practitioner understandings and the privileging of 'insider' expertise. During this portion of the dialogue, Tara as parole officer as well as, for example, the two education officers, Carol and Linda, could not have

joined in the conversation. Their voices were excluded in the ruling relations (Smith 2006) that privilege holders of certain types of competence and knowledge as viable parties to the talk. Here language, especially the language of professions with specialist jargon and terminology, can often be used to tacitly control access, to authorise those inside the community of practice versus those who remain on the outside or periphery. In institutional talk, the intimate relationship between language and power reflects and maintains positional roles, the valuing of certain competencies over others and other practices that Thornborrow suggests could be productively unpacked (Thornborrow 2001: 6).

Yet despite the exclusion as participants of talk during the Chris/Adam dialogue, all participants are still able to acknowledge a collective empathy with Adam's explanation of Offender B's reaction to being formally diagnosed as schizophrenic (lines 24-30 followed by an extended and reflective group silence in line 31). I remember my own personal reaction at this point in the conversation: it was as if all of us in the room suddenly connected to Offender B (whom I would not recognise if I passed by him) in a momentary yet strongly meaningful sense of collective vulnerability as human beings. Words spoken or not spoken thus also have a productive quality to evoke images or affective meanings in people. The group's collective silence is a significant response to Adam's explanation of Offender B's frame of mind – perhaps more meaningful than if actual words had been spoken.

Despite the group's moment of empathetic unity, Extract 5 shows how those who have a strong share of talk can direct and shape the nature and sequencing of talk and in essence, drive for closure toward potential action (e.g. a suggestion of alternative medication) that the group sanctions either explicitly by participating in the talk, or implicitly by silence from those who do not participate. This issue of voices heard and not heard is further explored in the next extract that is taken from a small group interview with the two education officers, Carol and Linda. Throughout the integration meeting, Carol and Linda listened but did not participate during the discussion of rehabilitative progress on seven offenders.

They did participate during the segment where Amy reported how she was progressing in recruiting additional staff to the centre, including an information technology teacher to help improve the offenders' computer technology skills.

Voices heard and not heard in talk

The interview with Carol and Linda occurred three hours after their presence at the programs integration meeting. Carol had been working at the centre for five weeks and had an early childhood education and human resources background, but this was the first time she had worked within a corrections environment. Linda had been working at the centre for nine months and during the past five years, had worked in teaching capacities at three separate gaols. In explaining her role at the centre, Linda identifies the uncertainty she feels about her contributions given a recent critical incident where some offenders had unexpectedly regressed back a stage rather than progressing forward as an indicator of rehabilitative success.

Extract 6: IN3.4
Linda=education; Carol=education; R1=researcher
```
1    Linda:   [---] I'm a bit like Carol in that I'm finding out about [the Education
2             role] myself. 'Cos it's a bit different here. We get a lot of access here
3             – in other gaols, you don't get a lot of access. Where I was before, there
4             could be two or three lockdowns a week and very limited access. So to
5             be able to achieve much really is quite difficult. But here we get a lot of
6             access. A lot of access ...  Having said that, the therapy is – they call it
7             the spine of the program .. and we're sort of …. the ribs
8    ((R1 laughs))
9             sometimes I feel we're bit of a tack-on=
10   R1:                                      =Hmm
11                                                    =But I guess, we have to
12            be sort of creating our role here. Now that we have this regression of
13            students – we thought people would be progressing and moving on and
14            there'd be a new lot coming in, it's sort of changed our life it has
15   ((Linda turns to glance to Carol))
16                                         I don't know how Carol feels about it. I sort of
17            feel it has changed my role a bit .. because I didn't expect people to
18            be coming back. I thought you know we'd done this wonderful job
19            with these people. It was a bit of a shock to me ((laughs)) that just
20            about all of them came back again! …. So it's a bit perplexing
21            knowing where Education intervenes there because we did all this
22            work, got them into TAFE courses, some were working, started them
23            off in distance learning  – not everybody but quite a few – before they
24            then progressed to Stage 2. And then they came back and they're pretty
25            disillusioned, annoyed and angry at themselves and the world, so don't
26            want to do any more studies. Throw it all away. Then they ramp up the
27            therapy, so they're doing that. So in a sense, speaking for myself, I'm
```

```
28          sort of perplexed about where I fit in with these people=
29   R1:                                                       =because
30          they've regressed?
31   Linda: Yes because they don't really want to be doing education again.
32          Because we've already worked with them for six months. And now
33          ((sighs)) .. they're back.
```

In Extract 6, Linda's metaphor of the spine versus the rib of a human body reflects her perception that Education has an under-valued role relative to other functions at the centre; that the therapy function (and by implication, the psychotherapists) has the power of voice. This perception supports a fieldnote I made during my observation of the previous programs integration meeting:

> Where is the involvement of education staff? Carol comment on teacher hours, Linda comment on contractor status. Seemed to be actively listening … but participation?

> Researcher fieldnote, 39.30min into meeting, G3.2.

In fact later in the interview, in the context of discussing Education's interaction with custodial officers, Linda reinforces again her view of Education's lack of visibility when I unintentionally used the term 'voice' myself:

Extract 7: IN3.4
Linda=education; R1=researcher
```
1    Linda:  [---] No Education has no role at any level training custodials.
2    R1:     Really?
3    Linda:  See, Education's this tiny micro thing down the bottom.
4    R1:     So it makes your lives really tough in terms of visibility .. and sort of
5            voice maybe?
6    Linda:  Well, I'd say in this setting, we probably have voices as much as others
7            do, but I guess what we can have a voice about is a bit limited ..
8            because it's the therapeutic, it's the case management, it's what the
9            therapists do. But we can have a voice about the educational input. But
10           on the case plan, our part is about this big ((indicates a small distance
11           about one centimetre between her thumb and index finger)).
```

Linda's comments in Extract 6 and Extract 7 show how her professional practice as an educational practitioner is being influenced by her understandings of the relative hierarchies in the roles of professional functions at the centre. Such tensions have an impact on her (dis)comfort in operating in an environment of uncertainty, in being part of a team that is learning how to deliver a new therapeutic model that require designs 'on the fly' to unanticipated events such as

the regression. These tensions create learning opportunities to reshape professional practice (i.e.. in this situation, Linda and Carol's educational practice), or for the team at CorrCo, to define the dimensions of an emergent interprofessional practice that builds upon various professional practices at the centre.

Working outside the comfort of competence: Voicing the challenges of crossing boundaries

Professional disciplines when working together in a group often expect the value of collaboration to be based on representational competence, i.e. that the skills and expertise of different professions can add value in complementary ways that deliver a common outcome, yet remain professionally differentiable and differentiated. At CorrCo, staff are recruited to the centre for the value of their professional expertise, yet the newness of the therapeutic jurisprudence model requires them as a collective unit to learn new ways of working differently. Often this requires individuals and teams to work outside the comfort of traditional competence and into the unknown spaces of the overlaps (Hager & Johnsson 2008).

For many at the centre, the challenge of exploring beyond the boundaries of their professional practice brings anxiety, uncertainty, opportunities and creativity, as illustrated by the talk from various members in the team.

> **Extract 8: Multiple practitioners at the centre as indicated**
>
> A Job Description would be really handy ((laughs)) because it leaves me feeling very anxious about whether I'm not doing the right thing, or I'm over-stepping into someone else's boundaries or I'm not sure, you know and I'm kind of … yeah … quite anxious about what am I meant to do, where I am meant to be (IN3.4).
>
> For someone who used to think they only worked well in a structured environment, I'm amazed at myself at how I would adjust, you know, go with the flow (IN3.2).
>
> Representation in the main goal works fine because they [custodial officers] have their SOPs [Standard Operating Procedures], they have their post duties that says you can do this, you can do this, you can't do this. And that's what they do and they won't step outside of that. Here we're asking a little bit more. And that creates a bit of angst I suppose. [Because] it goes against the attitude that they've brought with them (IN3.6).

We had to start thinking outside the square … We had to try it, we haven't asked permission to try it, we just went with it (IN3.3).

So when you move from a place that's a really identified role, it's the traditional way, you're very comfortable and secure in that, then you just carry on in the normal way. But when you go to something else, when you're feeling insecure in yourself, you push out with what you know best (IN3.8).

Such talk as illustrated in Extract 8 indicates how these practitioners see the parameters and boundaries of their current practice; what artefacts (e.g. job descriptions, standard operating procedures) provide semiotic significance to activities that are commonly performed or valued and the social practices from which their professional competence and identities are embedded and continue to emerge.

In this exemplar of program staff positioning their talk about helping drug offenders (Section 5.3) and the previous exemplar on orchestral musicians talking about acting professional (Section 5.2), participant talk at both *discourse* and *Discourse* levels provides glimpses of the sociocultural nature of work and life. Talk connects participants in the relational dance of talk-in-interaction that is shaped dynamically as the talk progresses. Talk also links to broader issues of practitioner identity, voice and competence in professional practice, indicating its role in revealing social practices and ruling relations within organisations. In these exemplars, I have focused on the talk that occurs verbally between and among participants in group interviews or team meetings. The next section discusses *text* as a special form of communication that can engage additional groups in relational learning.

5.4   Choreographing through text

Unlike talk that 'disappears' after it is performed or enacted, texts in organisations often remain as highly-visible enduring artefacts of business and social practices. Texts are used to inform, record, confirm, evaluate, instruct, direct, persuade and have multiple roles in their communicative and instrumental purposes within organisations.

Within orchestral musician practice and the development program environment at SymCo, texts includes diverse items such as musician audition assessments, musician rosters, DEV1 and DEV2 program evaluation surveys, concert programs and importantly the musical repertoire that is played. Music as textual representation of sound is well-researched in music education and practice across a variety of genres (for example, Agawu 2001; Middleton 2000) as well as for social, therapeutic and community purposes (De La Fuente 1998; Pavlicevic & Ansdell 2004; Wheeler 2005; Wigram et al. 2002). Music in life and as a business represent examples of how texts 'speak' (Drew 2006) from the perspective of communicating the intentions of composers via a language of symbols to performers and audiences. Within a corrections centre environment (or other traditional business organisations), texts are represented more through the artefacts of organisational memos, terms of reference for program/project initiatives, emails, case notes, medical annotations, leave passes and policies and procedures manuals. These items reflect the instrumental and task-related nature of work activities, frequently as mechanisms to verify allowable tasks or to check interim progress against the achievement of longer-term organisational goals.

As discussed in more detail in my methodology chapter, Chapter Three, I generated a written case study document for each organisation as an artefact of my interactions with participants. This document became a complement to the texts already in use by organisational members. Each case described the chronology of activities and actors involved in the challenging incident (agreed scope of the case study) using the perspectives of insiders in the organisation: a kind of organisational story as experienced by participants. But I also interwove an outsider perspective, developed from my own work experience, discussions with my research colleagues and desk research on literature relevant to that organisation's industry or learning focus.

To explain how text can function as a communication form that generates relational connections within and among groups, I use an example from SymCo to

demonstrate how music as text guides the talk of performance. I then identify that the organisational story contained within the case study document I generated, creates possibilities to connect with new groups – essentially, choreographing more communications without the presence of the original participants. The case study document as an example of co-constructed writing has had consequential effects on my subsequent interactions with participants beyond the official end of my research investigation.

Guiding and gesturing a form of practice through text

The performance of classical music is generally regarded to require high levels of performer artistry that contribute to the enjoyment and appreciation by audiences and fellow practitioners alike. Yet the playing of music also involves the accurate technical interpretation of the composer's original intent through the notations and symbols elaborated on the musical score. For example, the musical notation of *staccato* usually denoted as dots above notes on a score, indicates that those notes are to be played in a distinctly separate manner with a portion of the note duration in silence (Gerou & Lusk 1996). In orchestral music such as in Tchaikovsky's Fourth Symphony, the symphonic score comprises notations and notes for multiple instruments that are intended to fit together as unified sound and represent Tchaikovsky's original vision for his symphony.

Therefore, a dominant way that orchestral musicians communicate through mediational means is through interpreting their texts of music. This interpretation occurs at least in two ways: 1) Using the musical symbols as a *personal* guide for action from composer to performer, i.e. a note with a dot on top meaning to play that note *staccato* and 2) Using the musical symbols across the symphonic score as a *collective* guide for action as members of an orchestra performing together. To a large extent, music as text, structures the rules of practice for orchestral musicians. If developing musicians want to gain entry into SymCo's development programs, they must audition by performing pre-selected excerpts. The sounds they make on their instruments when 'reading' the music need to be consistent with what professional musicians on the audition panel interpret as acceptable and

accurate interpretation of that text. Here, there is a sense that conduct is to be quite regulated, so that rules (through music as text) provide guides to mutual reciprocal expectations as to how to act/perform (Emmet 1966).

For example in Extract 2 line 16, Anna mentions that the leader of her viola section is inserting bowing markings on the viola section score during rehearsal as a guide to how the conductor wishes the string section to play at the concert. Here, the conductor's talk during rehearsal about a preferred musical style has been translated to additional text (bowing markings) as a mediational means for future action (way of string playing at the concert). Although such texts provide a mechanism to guide collective action, they remain only partial interpretive guides of how to perform and act in musician practice. Steve, an experienced brass player who was also present at the same rehearsal, explains the limitations of the written score in this way:

Extract 9: IN1.11
Steve=brass instrument player; R1=researcher

1	Steve:	[---]Okay, so in terms of Tchaikovsky, before we even started, I
2		said to the guys, look normally when we play this type of … and they
3		understood that it would be a much bigger string section so we'll ..
4		and I said what we want to try and do is get a really nice clear
5		definition in the sound and maybe just to cave the sound just a little
6		bit on each note so that there's not this <u>massive</u> sound and also
7		being quite a live hall .. you know so that was something quite
8		specific and pertinent to our instrument because there's a couple of
9		different ways you know you could play it without even being a
10		musician – well you could play <u>softer</u> so does that mean you play
11		with a <u>softer</u> attack as well? Well, so you know, without that definition
12		on the front of the note, it suddenly becomes a <u>completely</u> different
13		experience out the front.
14	R1:	Ohhh?
15	Steve:	It becomes a <u>dull</u> sort of sound; it's not <u>exciting</u> or energetic any
16		more.
17	R1:	Yeah?
18	Steve:	So ... those are the sorts of things you learn over time and just listening
19		to recordings and performing yourself.
20	R1:	'Cos you wouldn't get that by looking at the score?
21	Steve:	You wouldn't have a clue.

In this musical example, text can function partially as rules of practice (the sounds needed to produce the Tchaikovsky symphony; ways of coordinated bowing at the

concert) that structure how to act or perform collectively. But through interpretation and usage, rules are also moulded by experience and contextualised social factors (a practitioner's awareness of possible sounds from his instrument; the size of the string section that the brass section must react to when performing this particular repertoire) – contingent factors that organisational researchers also support (March & Olsen 2004; Mills & Murgatroyd 1991).

Text as opportunities for choreographing more conversations

Organisational story/ies and storytelling are recognised forms of research (Boyce 1996; Czarniawska 1998; Labov 1972; Labov & Waletzky 1967; Smircich 1983; Usher 1997) as well as practitioner techniques that charismatic leaders have mastered (Denning 2001; Tichy 1997). As Fisher first identifies, stories are a philosophical form of human communication 'in which people express values and reasons, and subsequently make decisions about action' (cited in Boyce 1996: 14). In their simplest form, stories usually comprise an original state of affairs, an action or event and a subsequent states of affairs (Czarniawska 1998: 2).

But unlike research intended to elicit personal life histories or biographies (Dominicé 2000; Goodson & Sikes 2001), the organisational stories that I wrote for my research organisations were constructed and interwoven from several partial stories told by organisational members. For example in Extract 1, there is a partial story embedded in Harry and Anna's backgrounds of how they developed an interest in music and what influences have driven them to pursue orchestral music as a target profession. The larger story of *how* and *why* Harry and Anna are learning what it means to become professional through DEV1 program participation can only be constructed, like mosaic pieces one at a time, by listening to the program founder explain his rationale for starting the program ten years earlier, by obtaining examples from the program administrative staff of how mentor and novice views have changed over time and a myriad of other glimpses of participant understandings that are used to construct the resultant organisational story.

Organisational stories have strong resonance among actors because they 'make myths' and 'remythologize' what is meaningful in their actions (Boje et al. then McWhinney & Battista, cited in Boyce 1996: 17). The story as a symbolic form allows actors to discover meaning, to articulate a logic that explains past actions and current activities in a focused way that 'narrows the horizon in which organisational life is allowed to make sense' (Boje et al., cited in Boyce 1996: 17). Restated another way, it enables the group to focus on its organisational essence, what Mink et al. call 'collective centring' (cited in Boyce 1996: 18), or a way to see the group's connection to a greater whole. At SymCo, this means being connected from within the collective practice of orchestral musicians; at CorrCo, this means the interprofessional care team's unitary commitment to rehabilitating drug offenders. This role for story and for the storytelling process points to two discursive concepts that have implications for collective learning: narrative identity and co-construction.

First, narrating a story suggests a philosophical and dynamic understanding of the role of *identity*. Ricoeur (1991) speaks of a narrative identity in that 'we equate life to the story or stories that we tell about it', supporting also MacIntyre's (1984) concept of the narrative unity of life. The story about orchestral musician practice at work is also a story about *changing identities* (especially the formative process of becoming a professional musician) and meaningfulness of actions in these musicians' lives. This view of identity 'exists as a discursive object produced in and through conversations rather than as a cognitively-held belief' (Hardy et al. 2005: 61). The story about interprofessional care at a corrections centre also highlights the concept of *collective identity* that subsumes the privileging of individual professional identities:

> Discourse-oriented studies of collective identity focus on the processes through which a collective identity is produced via the creation of texts, and on the relationship of collective identity as a discursive object to patterns of action … provid[ing] a powerful basis for understanding dynamics of collaboration, because it situates collective identity in the language in use among members [rather than] across the minds of individuals' (Hardy et al. 2005: 62).

Here, Hardy et al. (2005) describe relations-in-use as contributing to the relational, discursive and emergent character of identity that is particularly critical for the cohesiveness of groupwork.

Secondly, the joint nature of *co-constructing* a story together reinforces the relationality of discursive collaboration. It is evidenced by a selection of Czarniawska's body of work investigating narratives in organisations (Czarniawska 1997, 1998, 2004; Czarniawska & Gagliardi 2003) and by others who highlight the importance of discursive participatory collaborations (Bartunek & Louis 1996; Josselson & Lieblich 1995; Reason 2003; Reason & Bradbury 2006a; Scheeres 2003). Here it is not just crafting the facts of the story, but rather as Czarniawska points out, that 'we are never the sole authors of our own narratives; in every conversation a *positioning* takes place (Davies and Harré [1991]) which is accepted, rejected, or improved upon by the partners in the conversation' (Czarniawska 1997: 14, italics in original). Through prior processes of listening and speaking, asking and answering, and creating and modifying the organisational story together, textual outcomes are an invitational means to continue the shared talk in newly symbolic and useful ways. They are no longer yours, mine but ours. And in creating the new 'ours', we have changed and continue to change each other.

5.5   Summary: Talking together at work

This chapter has discussed how talk connects people and groups at the micro level of talk-in-interaction as well as carries inferential and symbolic significance for groups that must decide what collective actions are needed to achieve work and enact practice. Through two exemplars – a duet of orchestral musicians and a group of specialist professionals in a corrections centre – I illustrated how talk as *discourse* structures turns, provides contextualisation cues for what comes next and enables a relational connection to be developed between speakers as dialogue progresses. Secondly, talk as *Discourse* highlights the ruling relations at play within the organisation or professions among speakers, how practitioner talk may

reflect or authorise certain competencies or knowledges that make visible certain voices over others, and reinforce positions or hierarchies that are socially determined.

As an additional way of choreographing conversations, text can guide and direct action in similar yet different ways. This mode of communications is selective in choosing which messages and voices to make visible; it is told from a certain perspective: the author-researcher's interpretation; and it 'freezes' the described practices that are contextualised at a certain point in time. When mediated as textual documents (or increasingly distributed via electronic means), text generates the possibilities for new relational engagement: the case study story that I 'left behind' as a new organisational artefact creates the possibility for individuals or groups not originally involved in the profiled incident to engage with the text and with each other, i.e. read, interpret, discuss and act. Such engagement generates re-interpretations that are adaptively re-contextualised to be meaningful (or not) to new groups of practitioners and observers with different experiences. In this way, talk and text are living social and discursive practices that contribute to ways of learning collectively.

When I as a researcher intervened in these organisations by conducting research, I became implicated in the contexts of the organisations I researched. In generating new textual organisational artefacts through my case study documents, I not only co-constructed and co-interpreted new conversational realities (Ramsey 2006: 14) but also lived a form of social reality (Berger & Luckmann 1966) with my participants. In privileging my relational voice, I must be cognizant of the authorial control that writing text and representing text as reality can have in organisational research.

When work is enacted through practices, practitioners learn to make sense not only of the practical tasks they are asked to perform, but they look for linkages with their own experiences as part of a process 'to know, understand, and make sense of their being in the social world around them' (Ricoeur, cited in Jabri 2005:

352). Here, learning as collective sensemaking with others encompasses instrumental and practical understandings and also social, relational, discursive, developmental and other sources of understanding (Dervin & Foreman-Wernet 2003; Weick et al. 2005). In the case of Harry and Anna as developing musicians, they are learning that,

> Although an orchestral musician is someone in a profession, becoming a professional (orchestral musician) means learning not only about performing your instrument, joining the orchestra, being in a job or at work but also about living a shared world with others where worthy dreams are at stake (Johnsson & Hager 2008: 532).

This complex nesting of D/discourse, practices, identities and social life is consistent with concepts of 'shared forms of life' and democratic life (Dewey 1958; Wittgenstein 1968), Aristotelian views on human flourishing (*eudaemonia*) and the narrative unity of life (MacIntyre 1984). That work is inextricably a part of life with reciprocal and mutually constitutive influences increases the challenge of explaining learning at work and how learning varies with local situational settings or context.

Van Dijk (1999) in his editorial to the volume 10, number 3 of *Discourse & Society* wrote that talk and text have received significant theoretical and descriptive attention but the same is not true for context. According to Van Dijk (1999), the trouble with context is that we lack the theoretical tools to explain the idiosyncrasies and the causality of individual variation. In defending a cognitive psychology perspective however, Van Dijk falls into the trap of searching for a mental model of relevance while admitting that theories of context are socially framed (1999: 292). It is exactly the space between discourse as action and social practices that should be the focus of context-sensitive analysis, a question that Van Djik essentially poses in an earlier contribution on discourse that he edited (Van Dijk 1997: 7).

Further, the normative and collective characteristics of practice suggest that the arena of participation for discourse, action and judgement is, and should be, from within practice itself. The tensions between practice interests and organisational interests are forums for learning as well as stages for institutional debate,

suggesting the importance of discourse as critical reflections that lead to change in practice (the focus of critical discourse analysis) rather than discourse as only shared meaning-making. That context can generate hypothetically an infinite number of local situations in which individuals and groups must enact through their language use should be considered to be creative and desired rather than limiting. My next chapter, Chapter Six, examines the notion of how groups judge and commit to their work in relational ways and how these relations are influenced not only by discourse as discussed in this chapter, but also by the roles, rules and ways of engaging with other practitioners that govern organisational and professional practice.

Chapter Six
Conjecture and Consequences: How Groups Relate by Judging Together

'conjecture' from Latin *coniicere*, to throw or cast together

Purpose and flow of this chapter

People as individuals or as members of groups make judgements on practical matters every day. Some judgements may be limited in impact and consequence such as 'what shall I have for lunch today?' Others may involve collective decisions that have visible and far-reaching consequential impacts on the organisation and broader stakeholder communities such as 'should our organisation release this new drug for terminating pregnancies?' Judgements can also remain invisible or unspoken and manifest themselves in tacit inferences or conjectures about the motivations and capability of others, forming the basis for attitudinal views or influencing choices for action or inaction at later times. In essence, workplace judgements, especially those involving groups, deal with discriminating from among the salient features of particular work situations, determining 'what ought we do?' as distinct from 'what is'.

This claim of 'rightness' has both epistemological and ethical dimensions (Beckett 1996: 136) that remain under-conceptualised in learning research that seeks to understand the social practices underlying why people behave in the ways they do. As Emmet observed more than forty years ago:

> Patterns of social action are not just regularities in how people are found to behave, but in how they are found to behave in part at least because of ideas they may have about what is useful, proper, the thing to do (Emmet 1966: 6).

The purpose of this chapter is to demonstrate how groups make practical judgements that shape their commitment and engagement with others and that influence how they collectively learn at work.

Section 6.1 expands on the concepts of inferential understandings and practical judgements developed by Beckett and colleagues (1996; 2002; Beckett & Hager 2002; Hager & Halliday 2006). When linked with prior conceptual work on roles, rules and relations (Emmet 1966) and relational dependency (MacIntyre 1999), I argue that practical judgements signal relational ways of committing and engaging with others that condition the inferential understandings of collective learning and their consequences. I illustrate relational judging with others through two discussions of my empirical data. In Section 6.2, I describe the talk of a work incident that arose unexpectedly during a group meeting among programs staff. This talk reveals how certain members of the group argue for a united role in solidarity by judging and dynamically constructing their anticipated future working relations with another function at the centre: the custodial officers. I juxtapose this group talk with the self-reflective observations of a custodial officer who assesses how being asked to work differently, outside the comfort of his disciplinary competence, impacts the way he judges himself and others and how this affects the way he currently operates and intends to operate while working at the centre.

In Section 6.3, I discuss the judgements of various chefs – both experienced and those in apprenticeship training – and how these judgements help contribute to learning *about* how to perform cooking activities and techniques, learning *from* others and learning *the practice* of the chefing profession and its responsibilities and obligations. The importance of learning enacted through interactions with multiple individuals operating in diverse situations is highlighted through the reflective excerpts of these chefs. In Section 6.4, I draw some implications for the axiological engagement and commitment that judging together provides for learning. I build upon two additional conceptual contributions to elaborate on a connective model of commitment that I believe adds texture to my acting (Chapter Four) and discursive (Chapter Five) characterisations of collective learning. The first is the joint creativity that emerges when groups interact and work together, as suggested by the term 'social poetics' (Shotter 1996; Shotter & Katz 1996). The second are the notions of 'generative politics' and 'active trust' (Giddens 1994)

where Giddens identifies the implications of value-laden perspectives that are adopted by people when encountering difference in joint affairs. I conclude with Section 6.5 that summarises the value of judging at work as a form of collective engagement that is relationally-developed and enacted.

6.1 Judging at work: Discriminating in a world of roles, rules and relations

'In our daily life, we are largely preoccupied with the next step' – John Dewey (cited in Schütz 1970: 102).

When individuals work together, they are holistically immersed in the experience, making them especially susceptible to learning (Beckett & Hager 2002: 41). Past experience, current skills, motivations about self and others, the situatedness of particular issues at hand and the resources available to resolve them must come together usually under time-constrained and problem-solving contexts to determine a path forward. Unlike judgement theories originating from behavioural science research that aim to rationally improve individual decision making under uncertainty and risk (Goldstein & Hogarth 1997; see review by Maule 2001), judgements at work favour practical, heuristic and satisficing approaches, or as McCall and Kaplan (1990) comment: 'whatever it takes'. Work in organisations requires operating in environments characterised by pervasive ambiguity, long-lasting incentives and penalties, and repetitive routine decisions; their impact on employees continues in consequential 'longitudinal contexts', suggesting that commitment may be more important than judgemental accuracy (Shapira 1997a: 3-8).

At the heart of proceeding forward are the inferences that people make from being connected in a collective situation and forms of inferential understandings that lead to purposeful and consequential action (Beckett 1996; 2002). Inferences are linked with acting intentionally, with a sense about making a difference from the way things currently are. So a group may judge to take an anticipated course of action based on a previous experience of a successful outcome from a similar situation. Having taken the action, reflecting upon the efficacy of such an action

for that particular set of circumstances provides feedback mechanisms (i.e. lessons learned) that have been valued in conventional learning research and business practice in general (Cavaleri & Fearon 2000; Kotnour & Kurstedt 2000).

As Beckett and Hager (2002) explain it,

> Feedback mechanisms report attempts ('tryings') [whereas] feedforwarding rehearses accomplishments. It is the reflexivity in actions between both of these which constitute practices, and which together account for both the routine and contingent in human activity … Understanding … is an inferential phenomenon [that] arises from the fluidity of rehearsals and accomplishments which constitute practice (Beckett & Hager 2002: 192).

Yet inferences at work are not unencumbered: they are enabled and constrained by the *roles* that individuals and groups hold and the *rules* that govern authorised and acceptable protocols of working. Both roles and rules serve to structure a form of regulated conduct that provides an ordered way to public affairs and some 'reasonable forecast of the sorts of things that [other people] are likely to do' (Emmet 1966: 7). Further, roles and rules are special forms of relations that mutually intertwine:

> A role is a capacity in which someone acts in relations to others … a way of acting in a social situation which takes account of the specific character of the relation [and] considered appropriate … for functional reasons or from custom and tradition (Emmet 1966: 13-14).

> A rule is a directive that acts of a certain kind should or should not be done on certain kinds of occasion by a person, a certain kind of person, or anyone … rules [are] concerned with actions in social relationships in which people carry out certain roles (Emmet 1966: 12, 15).

When individuals are immersed in the experience of work practice, rules that guide practice and rules that govern the operations of organisations must be sorted out and weighed up with roles that those individuals bear within their web of social relationships (both inside and outside the organisation). As Emmet (1958/1972: 276) observes, practitioners must find a *modus vivendi* through their various roles to live their lives at various practical moments. Conflicts arising from the demands and obligations of different roles may be actioned in various ways:

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> The functional, purposive and creative aspects of actions are … connected through the fact that these actions are carried out through roles in social relations, and yet at the same time there is always scope and need for personal judgement (Emmet 1958/1972: 277).

Further, practitioners develop a shared understanding of what rules mean in their contextualised practice. Rule-following is not driven by a logic of universality that is prescriptively applied the same way each time. Rather, through human usage and interpretation, rule-following uses a logic of appropriateness moulded by social interaction and experience (March 2000; March & Olsen 2004; Miller & Wright 2002; Mills & Murgatroyd 1991). For example, in relating her experience as a planning officer with a local council in the United Kingdom, Hillier (2005) discusses the intimate relationship between rules and practice as follows:

> The relation between rule and practice is reciprocal; various sets of rules (the statutory planning system, cultural traditions etc) inform practice and practice influences the interpretation of the rules. The rules are, at any given time, what the practice game has made them (Hillier 2005: 182).

All these considerations come together to guide adults as practical reasoners in learning how to discriminate among the salient situational features and committing to the actions required (Kemmis 2004). Such learning takes place however because there are others whose 'presence or absence, intervention or lack of intervention, are of crucial importance' (MacIntyre 1999: 73). When acting within institutional environments such as goal-oriented organisations, often there are 'relationships of rational exchange [that are] designed for and justified by the advantages of the parties to the relationship' (MacIntyre, 1999: 114). For example an individual can gain self-fulfilment (intrinsic reward) and promotion (extrinsic reward) by working for a year away from her family to help her organisation gain competitive advantage in a developing country. Here, the judgement exercised achieves mutually beneficial outcomes for both the individual and the organisation (assuming support of the family relationship).

But if this individual's role is a country manager with the discretion to price the company's children nutrition product either a) so that customers can afford to feed

their families and decrease levels of domestic poverty, or b) so the company achieves target operating margins for overseas operations but not both, putting her personal performance evaluation at risk, the 'right' judgement is less clear. MacIntyre (1999) explains his concept of *asymmetrical relational dependency* as follows:

> We know from whom it is that we have received and therefore to whom we are in debt. But often we do not know to whom it is that we will be called upon to give … we can set in advance no limit to those possible needs (MacIntyre 1999: 100).

> [Therefore] practical learning … is to find one's place within a network of givers and receivers in which the achievement of one's individual good is understood to be inseparable from the achievement of the common good (MacIntyre 1999: 113).

So the nature of practical reasoning is to reason together within some determinate set of social relationships that are continuously constructed and inseparable from the development of dispositions to act for the good, not only asking 'what is it best for me to do?' but also 'what is it best for us to do? Each individual has to learn what place these principles should have in his or her life and the norms of giving and receiving that guide rational and affective relationships.

This sense of commitment evokes a kind of incommensurate giving to future practitioners and trust in their good judgement that cannot be known *a priori*; learning construed in this way must be constantly renewed with each network of dependent relationships that change with situational specifics and different actors who hold different norms of giving and receiving. MacIntyre's (1999) conceptual work on relational dependency shares similarities with the contributions of Emmet (1966), in that through engagement with others and a joint commitment to act within an unpredictable future, a certain kind of stewardship in practice is developed. Learning emerges from the exercise of judgements, which are fallible but capable of improvement, particularly coming to the fore when exercised in difficult situations (Emmet 1966: 88).

6.2   How corrections staff judge motivations for ways of working together

As discussed in the previous section, the conceptual contributions of Beckett, Hager, Emmet and MacIntyre demonstrate how commitment cannot be simply described as the psychological motivations of individuals nor driven by rational expectations of exchanges of interpersonal value. Further, engagement goes beyond the decision to commit and participate in actions with rational expectations of intended consequences. Commitment and engagement in a collective relational sense need to be contingently earned, having a sense of interdependent 'here-and-now awareness' (Boreham 2004: 12) that does not necessarily provide predictive certainty for future actions. In fact for MacIntyre, 'to enter a practice is to accept the authority of … standards [of excellence] and the inadequacy of [personal] performance as judged by [those standards]' (MacIntyre 1984: 189), opening up individuals to the sense of vulnerability and mutual dependence.

The following example from my case study of the corrections centre (CorrCo) illustrates how roles, values, emotions, politics and situation get enmeshed together to shape the judgements that become visible through a group discussion at the centre. It describes what my research participants identify as *the search incident*. Present at this weekly programs integration meeting are program members of the interprofessional care team: besides Amy the director and meeting chair, alcohol and drug (AOD) counsellors (2), psychotherapists (2), education officers (2) and a parole officer (1) – this is a continuation of the meeting that I and a co-researcher observed and that I used to examine discursive practices discussed in Section 5.3 of Chapter Five on choreographing talk. In addition to the programs staff, custodial staff also work at the centre and are responsible for maintaining the confinement of the offenders. There are no custodial staff in attendance at this programs meeting, although the centre's working model encourages many joint staff interactions with offenders and cross-disciplinary interactions among staff (often through co-facilitating activities) as ways of role modelling pro-social behaviour.

During a portion of the meeting where Amy is providing an update on open staffing positions and staffing in general, Amy explains the justification for an email that she recently circulated about an inappropriate staff comment that was posted on the fridge in the tea room after an offender incident with a stolen mobile phone. Tara, the parole officer, volunteers that 'an officer was responsible for that and another officer called up that officer for that', a statement that Amy confirms. The commonly-understood work context for the term 'officer' at the centre means 'custodial officer' even though several programs staff also have 'officer' in their titles. The historical rationale in this work context is that early (1890–1950) prison staffing systems were designed upon military models of hierarchy and control (Liebling & Price 2001).

Tara's comment leads to group talk on the search incident, as it turns out, a highly-charged recent event where custodial officers from a nearby prison had entered CorrCo and used significant physical force in dealing with the offenders. The talk now shifts to discussing the nature of the working relations between program staff and the local custodial staff at the centre, and in doing so, reveals how perceptions of collaboration and commitment are contingently and dynamically constructed as a social practice that binds a group of individuals together.

Judging ways to behave: The search incident

Note that in the following extracts, the term 'participants' is used by the meeting members as the preferred term for 'offenders' at the centre.

Extract 1: G3.2
Kate=psychotherapist; Chris=psychotherapist; Amy=director of the centre
1   Kate: [---]That was a concern because .. after the …. the search some of
2   the officers instantly took it as an affront again…that we had said
3   something you know that we were siding with them? You could see
4   that straight away couldn't you?
5   Amy: Yeah and that someone came to see me yesterday that there is a view
6   among the officers that the program staff .. which I .. includes me
7   .. um have assumed that what the search people did was wrong.
8   And I said we're not assuming anything, 'cos we don't have any
9   evidence. But we do know two facts and it's why we reiterated this

10		morning, we know that (*the offender*) was out in the rain in his
11		underpants for two hours and we know that an Aboriginal
12		((indecipherable)) was hand-cuffed for two hours and had to stand
13		((inaudible)) so there are two facts that we know and they're the things
14		we end up questioning them on that. So there's a view that we
15		sided with the participants and we believed them.
16	Unidentified:	[Hmm, hmm]
17	Amy:	'Cos I think what we've got to get across is the notion of due process
18		like in gaol ... you're in gaol for loss of liberty and you shouldn't be
19		sticking the boot in anymore and if there an issue, there's a notion of
20		due process. That's like the mobile phones, it's trying to get that=
21	Unidentified:	[Yeah]
22		=message across to the custodial staff.
23	Kate:	But as a centre…
24	Amy:	[We're not being soft on crime or something]
25	Kate:	[But as a new centre for anything that we stand for, we
26		should be above reproach.
27	Amy:	Yeah.
28	Kate:	Actually it's about anything we do should be transparent, there's
29		nothing for blaming ..officers .. or um becoming an us or them
30		issue But <u>instantly</u> it became=
31	Chris:	=Hmm
32	Kate:	=that day <u>instantly</u> it was=
33	Amy:	=I think they perceive that the programs staff respond dramatically on
34		behalf of the participants.
35	Kate:	We didn't do anything!
36	Amy:	But at that meeting that's how it was perceived. The programs staff
37		dramatically supporting the participants without thinking that .. well
38		there might be another side to the story. …... So ((sigh)) um so the
39		person who came and saw me about that was saying just be aware that
40		there might be this kind of splitting.

Kate's talk in Extract 1 exhibits an affective and moralistic response in the way she positions her public views on the search incident. Her talk-in-interaction is designed to persuade others in the group, particularly Amy who represents two different sources of power relations: 1) as director of the centre being hierarchically 'above' the custodial officers and 2) as a psychotherapist colleague and member of the same community whose motivations are being challenged. Kate's question as phrased in lines 3-4, demands a positive confirmatory response from Amy, as if Amy's response will represent a visible symbolic signal of support for 'us' rather than 'them'. Although Kate's talk-in-context might indicate an egalitarian collective principle among all functions at the centre (e.g. what the 'new centre … stand[s] for [and being] above reproach' in lines 25-26 and 'anything we do should be transparent' in line 28), the collective 'we' transforms

quickly to mean only the programs staff community (e.g. '*We* didn't do anything!' in line 35, my emphasis). Here, Kate's talk is embedded in her collective identification as a member of *the programs staff* resisting an unjustified attack from custodial officers.

In Amy's responses, she achieves multiple communicative purposes that provide added texture to the way she is behaving through talk. First, in recounting the story of her conversation with another individual, Amy provides additional detail about the incident that not everyone in the group may know. In doing so, she makes explicit some of the perceptions about the program staff community that exist at the centre. In Amy's story-telling and her dialogue with Kate (lines 23-40), she uses her explanations to demonstrate her various frames of reference and patterns of participation, what Goffman (1974; 1981) calls 'interactional footings'. She is the narrator of the conversational story. She is a participant in the story and implicated as part of the programs staff community: her statement, 'which … includes me' in line 6 is later supported by an indication of the personal effect the incident is having (her sigh in line 38). She represents the institution and management of the centre (the use of the collective 'we' in lines 8-14) that ideally would be run according to rational and fair standards of deliberation (e.g. 'we're not assuming anything … but we do know two facts' in lines 8-9).

Two minutes later, the talk moves onto recalling behaviour at an earlier morning briefing session in the tea-room attended by both programs and custodial staff (we researchers also attended) that reveals perceptions on institutional roles and working relations between the 'security' side (custodial) and the 'helping' side (programs).

Extract 2: G3.2
Kate= psychotherapist; Chris=psychotherapist; Amy=director; Tara=parole officer
```
1    Chris:   [---]'cos it first came up at the briefing .. before we went to the
2             community meeting.
3    Tara:           [Hmmm]
4    Chris:   Maybe …. we have to choose our words more carefully when we're
5             saying  … you know like this is what the participants are telling us,
6             we're not making a judgement call, this is what they're telling us and
7    Tara:                                  [yeah, yeah, you have to I think
```

8		you have to spell it out I think and I'm guilty of it of doing that
9		because I got a little emotive 'cos it, it <u>did</u> hit a chord with me. And
10	Kate:	[Hmm, hmm]
10	Tara:	um so I basically … I know what I said and I even was I showed
11		emotion and I think that was probably um interpreted in another way=
12	Kate:	=Hmm
13	Tara:	=as well you know.
14	Amy:	Yeah so I think that's just a learning thing. That next time something
15		like that happens, we just deadpan about it but we don't cover it up
16		because what I refuse to do [is to cover it up]
17	Tara:	[yeah, I won't .. ever cover it up]
18	Chris:	I think we need to choose our words carefully when we're saying it
19		and just put the question out there: this is what they're telling us, we're
20	Tara:	we're not saying it's accurate
21	Chris:	[maybe we need to investigate – that sort of language.
22		We're not saying it's accurate, this is just what they are telling us.
23		Let's go through the motions now of finding out. Yeah, I think
24		that's … Particularly when we were there, (*one of the custodial*
25		*officers*) was rolling his eyes and you ((glances at Amy)) even said to
26		him: you think I'm over-reacting, don't you? and he said: yeah I do.

Here in Extract 2, Chris has taken over from Kate in guiding the direction of the conversation, by suggesting to the group that they be mindful of the future language to be used when interacting with custodial staff. Tara and Chris collaborate to 'rehearse' future talk by talking it out to the group. Chris re-enacts Kate's strategy in Extract 1 of ensuring Amy is 'on board' but in a more indirect yet still value-laden way. Chris re-tells the portion of the morning briefing story in a way intended to persuade the audience of Amy's loyalty to the programs staff's perspectives (e.g. 'you even said to him you think I'm over-reacting, don't you?' in lines 25-26). Chris in *re-telling* this portion of the story, is exerting her power as narrator (the voice heard) to reinforce what becomes the *remembered* organisational story, based on her judgement of social justice advocacy for the offenders and fairness for the public reputation of the programs staff group.

Yet this positioning by the programs group has the potential to fracture the cohesion and egalitarian principles under which the director wants the centre to operate. The talk that Kate and Chris particularly demonstrate in these two extracts is indicative of how talk-in-context is sensitive to underlying social practices embedded in the broader environment of the institution in which it occurs – the traditional role of control (often physical control) exerted by

custodial officers to protect the community from harm competing with broader societal norms of human dignity and the social justice principles at play in implementing the current model of therapeutic jurisprudence. The group talk in Extract 1 and Extract 2 has 'thrown or cast together' (in the original Latin sense *coniicere*) inferences about the empathy, fraternity or alignment of the local custodial officers at the centre, even though they individually and collectively did not participate in the search incident. Each person present at the programs staff meeting, whether participating or not in the conversational talk, must now decide and discriminate how they will commit to individual and collective anticipated action when next interacting with custodial officers at the centre. Will they confront the issue directly – individually or collectively? Choose to remain silent? Beneath the surface, will it affect the patterns of social relations that are being co-constructed and woven together by staff on a daily basis?

I now contrast the judgements as revealed by this group talk in the search incident with judgements revealed by a custodial officer during his reflections on learning about himself and learning with others.

Judging ways to behave: Working outside the comfort of competence

Andrew is a custodial officer with twelve years' experience working in a variety of minimum to maximum security gaols. His rank is a 'three-striper' which is considered about midway up the hierarchy of prison officers, having started his career through entry-level training at the academy and earning his promotions systematically over the years. He has worked in large prison environments performing traditional security functions and in program gaols or special purpose units (focused on crisis management, treating sex offenders or detoxification) where his role has been as activities officer, clinic officer or performing general duties.

During the early part of Andrew's interview, he explains what motivated him to apply for a position at CorrCo.

Extract 3: IN3.7
Andrew=custodial officer
1   Andrew: During the interview, they make it very plain that you're coming into
2   a totally different environment. And I already had a good idea from
3   working [at another program gaol]. And I wasn't disappointed. It was
4   … it took some adjusting as I'd had five years of [traditional gaols]
5   behind me again. So I had to shift my … the goal-post had to be
6   shifted quite a bit … I don't regret it. I don't regret it for a lot of
7   personal reasons. But ((sighs)) I think you can go a bit brain dead in
8   the mainstream system. …. I'm fairly expressive, creative sort of
9   person. And I really … these therapeutic units suit me. They really
10   suit me. Even though I've copped a lot of flak off friends and other
11   staff who are outside the centre. A lot of … like I'd say to the point
12   of abuse. Like verbal abuse. But I just, I like how … I like what I
13   feel like [when] contributing. And I like how I feel when I walk out
14   each day. And I'm also mindful – you know in twelve years, I've
15   seen a lot of relationships between officers and their spouses just go
16   bad. A lot of divorces, a lot of nasty stuff happen. Always the
17   spouses and everyone else getting blamed and not the officers. And
18   I've seen a lot of officers have a really tough attitude like for eight
19   hours a day on their shift. And I think if you act like that day in day
20   after awhile, it can carry over to your home. And I was always
21   careful I didn't want that to happen. I've been married for eight years
22   now; with my wife for nine years now. Like for a massive chunk of
23   my career. And I'm always thinking to myself, you know, don't be,
24   don't carry that attitude with you. It's easier to be yourself at work so
25   you don't have to be constantly making that adjustment.

Andrew's philosophy of life, or what I would characterise as his moral compass, intertwines into his professional life as indicated by what he observes later in the interview about the opportunities that his role is providing:

Extract 4: IN3.7
Andrew=custodial officer ; R1=researcher; R2= researcher
1   Andrew: Yeah, Amy was talking about mixing up the roles … It looks
2   like I'll do part of the liaising. So at [other main gaols], that would
3   never happen. [There,] your role was much more clearly defined.
4   And you're not encouraged; you're discouraged from going outside
5   your pay grade so-to-speak.
6   R1:   So this new task … would be something that would normally be done
7   by another function?
8   Andrew: I would have thought so, definitely. It appears like I'm going to play
9   some kind of role. Like I'll just take it as it comes.
10   R2:   Would you have any of your fellow officers here who might say:
11   'What are you doing that for? You shouldn't be doing that'?
12   Andrew: Everyone's got different motivations for being here. And I respect
13   most of those motivations. But I think to myself, anyone's who's
14   coming here knows that you're going to have to do more than just
15   custodial work.

In Extract 4, Andrew has highlighted how the opportunity to enact certain roles can be inhibited by the governing rules of an organisation, for example, being discouraged from going outside his pay grade at conventional gaols. In contrast at CorrCo, three factors are coinciding to enable Andrew consider new possibilities: 1) the operating model of therapeutic jurisprudence sanctioned by institutional leadership, 2) Amy's leadership and willingness to experiment outside the norm to get the job done, and 3) Andrew's own agency at committing to a course of action that is outside his traditional area of disciplinary competence. The standards by which he judges his own behaviour (line 24 in Extract 3) are matched by his inferential comments about the motivations of others (lines 12-13 in Extract 4) and the collective basis by which he and his fellow practitioners ought to be judged (lines 14-15 in Extract 4).

Thus, roles and rules may be ways of facilitating ordered conduct but they can also be interpreted as creating safe boundaries within which commitment to act can be masked. The programs staff group through their group talk collectively decided to take on a *persona* (e.g. lines 4 and 18 by Chris in Extract 2: 'we have to choose our words more carefully') towards the custodial officers as a commitment to action that would be at odds with the principles that Andrew tries to live by (e.g. lines 24-25 in Extract 3: 'It's easier to be yourself at work so you don't have to be constantly making that adjustment'). Whether the programs group follows through (or 'feedforwards' in Beckett's (1996) terminology) on this commitment is not necessarily a good indicator that they will choose this behaviour for their next interaction or every interaction with custodial officers. Neither can I predict that Andrew will necessarily show his avowed self in work situations where he faces difficult dilemmas. What can be said is that these practical judgements are influenced by affective and conative factors and were made visible by group talk. Such judgements resulted in relationally-structured anticipated future action and a form of organic learning that is simultaneously unifying (the programs staff as a unified group) and polarizing (against the custodial staff).

Andrew's comments in the next extract regarding the prop of a uniform, suggest that 'role' is very much akin to 'role-playing' from its original drama contexts and can often be used by individuals to mask or protect the authentic self from others.

Extract 5: IN3.7
Andrew=custodial officer ; R1=researcher

1	R1:	I notice you don't wear the uniform. You have the choice here not to.
2		Can you just talk a few comments about …
3	Andrew:	Why I don't?
4	R1:	((repeats)) Why you don't. What's behind that?
5	Andrew:	Look the biggest thing is I do a lot of training with [the offenders].
6		So it's a comfort thing.
7	R1:	Yes.
8	Andrew:	I don't particularly like my uniform that much, you know?
9	((Andrew and R1 both chuckle))	
10	Andrew:	The pants in summer are very hot. If I'm going to be doing all this
11		stuff, I'd just like to be comfortable. Look, I see a place for a
12		uniform. It is an authority symbol and you know, not everyone is
13		capable of, I don't know, maintaining authority without some sort of
14		a prop. Some people put the uniform on like a suit of armour, you
15		know? I don't believe I ever have, you know? Um so, but it's never
16		been important to me. To me it's not like I think … oh, I'm so proud
17		of that crest or whatever. I never think about it; it's just something
18		I've been told to wear. I'm just as comfortable in these ((pointing to
19		his polo shirt and pants)) in civvies – it won't make any difference to
20		how I act … as opposed to being in uniform.

Andrew's use of the suit of armour as a metaphor is something I recognise from my own practitioner experience. I personally have observed several individuals weighed down in organisational life by the burden of their perceptions of the responsibilities and restrictions that roles carry. In constructing changing networks of giving and receiving, individuals can often hide behind roles to avoid valuably learning from each other. Roles as categories can unify in affiliative ways but not necessarily always in productive ways. I remember in my role as strategic planner for a multinational company several years ago, after making what I thought was a helpful comment about what we could do differently in Marketing, being told that 'You don't know anything about Marketing; you are *just* a strategic planner'. My relations with the marketing staff at that company during the tenure of my employment seemed to carry the burden of long-term penalties in longitudinal context referred to by Shapira (1997a).

At CorrCo, the roles that individuals hold are legitimised by disciplinary competence (e.g. psychotherapy, parole, custodial functions) and the many years of educational preparation that typically characterise professional practice. Yet in enacting work through the structure of an interdisciplinary care team, work at CorrCo provides developmental opportunities to judge together using the combined expertise of the represented disciplines. Often it is easier to prescriptively apply known techniques within the discipline, or to be affectively and politically impacted by situational circumstances structuring the emergence of group self-interests such as the defensive talk of social justice by programs staff in the search incident.

For Andrew, his experience continues to be relationally constructed: he has been influenced through his interactions with others; he has influenced others, both the offenders whose rehabilitation is an organisational objective and his professional colleagues, who are enabling and interdependent resources. Importantly, he has learned something new about himself and the value of committing self in engaging with difference in a relationally-dependent world:

> That's one thing that's different [here] … ((pause for several seconds)) … well, maybe I'm different now (Andrew, IN3.7).

Both programs staff judgements about the search incident and Andrew's judgements about having the courage to do more than just custody work at the centre reinforce the simultaneity and tensions that axiological commitments bring to professional practice. Judgements are individual actions yet exist and have impact in public, social and discursive realms – they are 'intensely social' in a Bourdieuian field of practice sense (Kemmis 2004: 399). They situate individuals in Bakhtinian time-place positions relative to others (Emerson 1997: 154), where each individual's answerability and personal stake must be renegotiated and revised through unfolding actions and talk that have consequences for future anticipated actions and perspectives.

Such judgements are not only affectively, politically and reflectively generated and discussed as illustrated by the two exemplars discussed in this section. They

also represent the practical reasoning that occurs when judgements guide actions that are learned in the process of remaking and changing practice. In the next section, I discuss how judgements and learning interrelate and interweave from actors' exposure to diverse situations and through numerous interactions with others.

6.3 How chefs learn by judging with others across diverse situations

Commercial cookery involves numerous daily microjudgements in the production of customer orders or banquet and special function orders. There are judgements of timing, workflow, recipe ratios, seasoning and presentation. Some decisions made are reversible but many are not. For example, putting in the wrong ratios of egg yolks to oil will not produce a quality product commonly understood as mayonnaise and that batch, usually made in large commercial quantities, will have to be thrown away, incurring economic consequences for the restaurant as a business. So chefs who make mistakes cannot generally undo, they can only re-do – the value of past experience, training or skills is measured only in today's performance, as lived in the present (Mead 1932/1959) with consequences for anticipated future actions.

Chefs learning their profession identify that judgements must constantly be made in ways that develop a pragmatic style adapted and tailored for the way it works for them, i.e. a *personal* enactment of practice. At the same time, practice is also understood as a community affair that is socially-determined, representing forms of communicative action in the public sphere (Habermas, cited in Kemmis 2004: 414-419), i.e. a *communitarian* form of collective capacity building (Kemmis 2004: 412). Versatility of personal practice enactments appears increasingly learned the more exposure a chef has to different modes of interacting in different situational circumstances. For example, Table 7 on the following two pages summarises observations from three experienced chefs about how apprentices learn by explicitly adapting practice from different others and different situations, not just following orders.

Table 7
Experienced chef observations about
judgement-based learning at work

Chef	Why multiple opportunities for judgements help contribute to learning …
Leon (aged 27 years): • Chef for 10 years. • Started working as a kitchen hand at the age of 14 for an uncle who owned a restaurant. • Became a part-time cook at the age of 17 while pursuing apprentice educational qualifications. • Currently a field advisor that counsels and mentors apprentice chefs at the GTO organisation. • Still cooks commercially on a casual basis.	I've worked in … 15-16 kitchens and every kitchen is different … I've worked with so many different people, just had so many different ideas and ways of doing things and that's probably the beauty of it. You can only learn so much off one person. … The good thing about being an apprentice to a chef is that everyone you learn off has learned from someone else. So you might learn off someone, but through their time, they've learned off 10 people. [So] when you become Head Chef, you're thinking right I need to make this and then you think, how should I make it? Then you start thinking about all the different ways you've been shown how to do it, oh I really liked that way because it worked for me, I didn't burn it … I'll do that. So when you teach someone, that's the way you teach them how to do it. [As an apprentice] you're only exposed to one way I suppose. You open your eyes once you've been a few places, working with different chefs.
Hans (early forties): • Chef for 23 years. • Started his apprenticeship at the age of 17 overseas, outside Australia. • Currently the kitchen operations manager for a large convention centre.	The reason we only have apprentices for two years is that there is only so much we can teach them … [otherwise] they can't make an honest decision which direction they want to turn their career. The only thing we can give them is options. But then it is up to them to make the most of the options we give them. They have to find a way that they can work best. It's pointless that somebody would copy me. Because that is the way I'm working and that's the way I figured out I can work best. Yes I have certain expectations – this is the end-product and this is how it is supposed to look like. As long as the flavour, the presentation, everything else is exactly what I want, <u>how</u> you get there, you have to figure it out yourself. My way or the highway doesn't really work anymore.

Sources: Leon, IN2.3; Hans, IN2.9.

Table 7 (continued)
Experienced chef observations about
judgement-based learning at work

Chef	Why multiple opportunities for judgements help contribute to learning …
Jeremy (early forties): • Chef for 21 years. • Started as a kitchen hand at age 12 • Started his apprenticeship at age 15; fully-qualified at age 19. • Currently the executive chef for a commercial catering company that operates various commercial kitchens.	Everybody's got a different management style. Now today, Teresa [Year1 apprentice] is working with Bob the sous-chef of the restaurant. Then I think June [the function chef] spoke to her about something else. Well OK, June does it this way, Bob does it that way. And it's probably one of the biggest things for apprentices in any environment … you're going to have three or four people at a certain level of position tell you how to do something and you're going to stand there and think: 'my god, who do I listen to?' But a smart person will go to the person at the top and say: 'I've been told this, what should I do?' rather than say: 'I've been pulled from pillar to post, I don't know which way to go'. And that makes the apprentice work out … how [(s)he] should go about, who should I listen to?'. Now I watch and observe a lot in the kitchen. So I can allow my sous-chef for the restaurant to do what he does in his capacity, just like the function chef and my assistant who's not here today. But if I don't see those key people doing what I believe they should do, then I'll step in and say something. So there's no point me taking the power and authority from those guys if I'm going to be there barking instructions every 30 seconds. So I allow everybody to operate in their capacity … then only if necessary, step in.

Source: Jeremy, IN2.5.

Apprentices who currently study and work simultaneously, are able to articulate what is different about the pedagogic education and training they get at TAFE compared to the judgements they must now make at work. For example, Stewart is a Year 1 apprentice who has three months of work experience at his first placement, an international hotel. His learning is shaped by daily judgements he must make in response to different actions and talk he receives from his boss and colleagues (Table 8 on the following page).

Table 8
Stewart's observations about
learning at school versus judgement-based learning at work

Pedagogic learning at school	Judgement-based learning at work
At school, they're very strict because they are trying to prepare us for what the kitchen is going to be like. And what I've noticed is that they're very very strict. And that teaches me about time – you've got to be there on time, you've got to be dressed, prepared, your bench set up. They're preparing us but they're really *over*-preparing us. What they taught us [about work], I thought [it was going to be] very scary, fast-paced precision-like.	But at work, it's more like your own responsibility. But when I got there, they're more relaxed, get things right. Don't worry about how long it takes, just get things right.
At school, they showed us cutting techniques like *julienne*. I'd learn it the long and hard way. Like how to hold your hands, the force you put on the knife, very technical in how things are so you get a full understanding.	My boss who was an apprentice himself a few years ago. He just showed me what's acceptable and not acceptable. [Compared to the more experienced apprentice here] I'm more hesitant to start something. I'd rather ask. My sous-chef and [the experienced apprentice] are more comfortable with each other. The way my boss talks to him is more experienced. It's like 'make balsamic dressing' … and he knows exactly what to do … whereas he has to explain [to me] step by step. … He talks shorthand to him. When I was told I was going to start this apprenticeship, I was told they would treat me like I knew nothing when I started. Researcher: Have they started using more shorthand with you? Have you noticed that? Yeah, that's how I know. It feels good when they can talk to me like that. I know I'm learning when I know exactly what to do. … So the longer I've been there, the more jobs they trust me with. So I'm still asking questions … but different questions; it's not always the same. I'm not repeating myself.

Source: Stewart, IN2.7.

Alternatively, Jack recently graduated with his trade qualifications after completing his three and a half year apprenticeship (six months earlier than the conventional four-year requirement with credit given for the complexity and

scope of his work experience). During his interview, he was able to compare and contrast his recall of developing a growing capacity to make context-sensitive judgements (Beckett & Hager 2002), from a focus on 'knowing things' towards more tacit and attitudinal meanings of his chosen vocational practice including 'giving back' to the profession by teaching junior apprentices. His comments reflect how the experience of practical judgements enmesh with a developmental sense of identity-formation with its associated axiological commitment that becoming a professional chef entails (Table 9 below and following page).

Table 9
Jack's perspective on learning judgements
during his apprenticeship tenure

Stage of apprenticeship	Reflections and observations
Pre-apprenticeship	University really wasn't on the agenda for me so I thought, well, the next best option for me was to take up a trade … I didn't want to be just a worker. I wanted work with some kind of skill level … It was very tempting to go into labouring and straight onto a large amount of money.
Year 1 apprenticeship	The hardest thing – but I think it is for everyone …that's really tough because you're going in there without really any knowledge, first to the game. The transition from your first year up to your second year … was the hardest for me … because you've gone from … being nurtured and looked after and [suddenly] you go straight out … into the workforce … My first year, many times, I thought: 'I'm going to drop this'. I got through the first year and when I progressed through the second year, I went to a five-star hotel – I thought: 'I got this far, I might as well go on'. My first year, I remember distinctly, my chef de partie [*literally station chef or line cook*] … I hated him! ((laughs)) But when I left, we were great mates. I was his protégé … it made him a better person and it made me a better person … There are times where you … deep down in you … if I'd walked away, his psychology was that he'd be a failure [if he couldn't] teach someone, then that's part of my trade as a chef …. I have to be able to pass along the skills.
Year 2 apprenticeship	I guess different people have different ways of learning. Some people can learn from hearing things; some people can learn from looking and watching, from doing or reading it in a book. But for me, I found that [saying] 'Chef, how do I do this? Show me!' ((laughs)). I'd find it helpful at the same time, if he'd sit there and show me the process and give you the background knowledge and the product, why they were doing it this way, its history and that type of thing.

Source: Jack, IN2.12.

Table 9 (continued)
Jack's perspective on learning judgements
during his apprenticeship tenure

Stage of apprenticeship	Reflections and observations
Year 3 apprenticeship	You take a bit from everyone and you use a bit. I mean I guess that's normal; that's what makes the next generation better … to effectively learn, you take on board everything that everyone has to offer. And combine all those techniques … to do the best you can. At the [hotel I worked at], there's this traditional way of making crème brûlées. There's a hot method and there's a cold method. The hot method's the traditional way and the cold method is the faster way. We used the hot method but another chef wanted to use the cold method because we were producing 1,000-1,500 little crème brûlées, you want to get it done as fast as you can. Whereas instead of making the mixture cold and then heating it up to set it, you'd make the mixture hot and then chill it down to set it. The chef said 'I want it done this way because that's my standard' and another chef came in and said 'Well, this is faster'. At the end of the day, they may be saying 'my way is better' but then they need to decide which way is better.
Final six months and post-apprenticeship	By the fourth-year, you've finished TAFE. You've been working for three years; a first-year comes in, you can show them. A lot of the time they feel more comfortable …. I've taught a lot of people a few things. When I teach, I'm a very casual teacher. I'm a very calm teacher. I want them to feel like I'm open to them, you know, draw the knowledge you want out of me. Researcher: Do you find now that you're teaching more, that you're learning more also? I mean, like teaching helps with your own learning? It does. When you teach, it refreshes the mind. When you're teaching, it gives you the initiative to go out and learn yourself. When I was a first-year, I didn't have one cookbook. Now fourth-year, I've probably got about 30-35 cookbooks. I never used to read, I'd just browse. You never read cookbooks; you'd just browse over it – oh, that looks nice, gives me a new idea, there's an ingredient I haven't heard of before, look that up, learn a bit more about that, what's that new method, I'll try that at work. There were certain days literally in my apprenticeship where I have transition periods. A lot of things sped up. [I thought]: 'Gee, I'm getting really close to the end, I'd better shape up' … you really start comparing yourself to people at your level. When I finished TAFE … and I was still a fourth-year at the time, I received my [educational certificate] in the mail. I sat home and looked at it for awhile and I thought, it's all happening now – you're not a baby anymore ... you have a responsibility. There are no excuses anymore … then eleven months later … I got my trade certificate … and I was like, OK … it's done! ((laughs loudly in delight)) You are Chef! ((laughs)). That felt great. It was very daunting on me as well, the fact that … well, you're on your own now buddy.

Source: Jack, IN2.12.

The comments of professional and apprentice chefs in this section demonstrate several similar themes about how values and inferences imbue the logic and practicalities of action and talk. They can be summarised as follows:

- Judgements are decisional actions that are based in the performance of practice and in practical matters needed within contexts that matter to know how to proceed (Beckett 2008).

- Judgements are holistic inferences of competence that must bring together knowledge, skills, awareness, attitude and other tacit characteristics into a here-and-now awareness that commits actors in the present but only provisionally (Beckett 2008; Boreham 2004).

- Encountering difference, through diverse situational circumstances and from interactions with multiple others provides developmental opportunities to exercise inferential understandings.

- Exposure to this diversity builds a portfolio of potential resources (e.g. different 'how to' techniques used by others) but judgement-based learning is more a process of adapting and personalising practice in practical ways that work effectively for self at different points of time-place relations. As Bernstein would put it, moving from building *reservoir* to putting *repertoire* into practice (Bernstein 1999, italics added; Muller et al. 2004).

The program design for vocational apprenticeships facilitated by group training organisations in Australia is a model that encourages exposure to different contexts through rotational placements. Apprentices that I interviewed as part of the KitchCo case study identified how they valued exposure to different and changing contexts as a basis for understanding how practice is not just cognitive, propositional, active and discursive; it is imbued with often difficult and competing inferential understandings that can only be exercised through participation in practice.

6.4 Judging as poietic patterns of engagement and commitment

My discussion in this chapter so far has highlighted the importance of judgements in contributing to the development of a shared understanding among individuals and a collective commitment to the Deweyan next step. Judgements are inferential

understandings that are relationally constructed with others and that explore the 'knowing why' of practice that must accompany the 'knowing how' of practice in order for learning to be worthwhile (Beckett & Hager 2002: 40). Judgements implicate self with others, identifying the intimate connection between 'what is it best for me to do?' with 'what is it best for us to do?'. In doing so, judgements are coated with rational, moral and value-laden senses of 'what we ought to do' in the search to make a difference through action and agency.

Viewed through a context-sensitive judgement lens, learning becomes a process of justified commitment and engagement, justified from the perspective of value significance or meaning-filled guide for action. In discussing discursive practices, Shockley (2006) sees commitment as both the grounds that others may legitimately make on holders of the commitment and the values held by the holders of that commitment. Orchestral musicians strive to generate a unified sound in symphonic performance. Grill, cold larder and dessert chefs and front-of-house staff cooperate to deliver not just a meal but a dining experience for customers. Corrections professionals work outside their comfort of competence to holistically rehabilitate drug offenders. These are all examples of collective collaborative work where participants develop, and are guided by, a discursive structure that recognizes the authority of practices in which they are a part. Shockley suggests that,

> membership, discursive practice and *pro tanto* commitments are interdependent. Recognition of the authority of the practice … gives the practice value for participants. The nature of this practice as a collaborative endeavor requires participants to be willing to provide reasons to one another, and thereby generates *pro tanto* obligations … toward one another … What it is to be subject to the norms of a practice is to endorse the practice, to recognize its authority, tacitly or expressly. To do so is to authorize a set of commitments and obligations tied up in that practice. (Shockley 2006: 82).

Here *pro tanto* (meaning so far, to that extent) signals that practitioners make unfolding commitments using their best judgements but also according to the norms of practice that represent the best standards of excellence the practice has so far. Challenging existing norms (e.g. working outside the comfort of role or disciplinary competence) is then an opportunity to change the practice and to enable the improvement and durability of practice.

Further, the nature of this mode of commitment and engagement is generative in a productive developmental sense for learning. Giddens identifies the concepts of *generative politics* and *active trust* as fostering circumstances where individuals and groups can bring about social change and 'remoralize [their] lives' (Giddens 1994: 92-93, 227). They 'reflexively mobilis[e by] making things happen rather than having things done or happening to them' (Giddens, cited in Zyngier 2006: 11). The art of negotiating active trust with others is especially important in postmodern times of 'manufactured uncertainty' (Giddens 1994), where a return to premodernity is neither desired nor possible, as critics of MacIntyre's early philosophical work (e.g. 1984) might suggest (see particularly chapter nine in D'Andrea 2006). In negotiating and articulating the basis of trust with others, especially in difficult situations where conflict and challenge are present, the politics of engagement and its significance are revealed.

The delivery of work is not just about an individual performing tasks or a job in isolation, or fulfilling a role that is distinct from the values he or she holds that guide choices and actions made in life. Delivery of work is a cooperative venture that provides many creative opportunities for learning. As Beckett notes,

> Schön leads into the "artistry" of … extemporaneous judgments by emphasizing, following Michael Oakeshott, that *professional* practice is part of a communitarian tradition of expertise. He mentions the "extraordinary knowledge" of the professional, and how this is bound up with a "bargain with society": a mandate to practice autonomously, but in the common good. … [preparing] the practitioner for the boundary-setting and other elements of world-view construction that make individuated reflection-in-action specifiable as artistry (Beckett 1996: 141, italics in original).

It is this sense of emergent creativity that 'social poetics' (Katz & Shotter 1999; Shotter & Katz 1996) or the poietics of practice signal the importance of commitment and engagement in learning. Conventionally in learning research, learning is characterised as representational understanding rather than inferential understanding. Learning is couched in a language of deficit and acquisition rather than creativity and process. Learning is assumed to be the additive sum of individual learning rather than having a complex, nested combinatorial impact.

The poietics of practice suggest that engagement and a minimum sense of involvement must be present when actors work and collaborate together. But Kemmis' sense of communitarian collective capacity (Kemmis 2004) suggests a need to go further. Commitment is also required because commitment connotes an opening up of a participant's value system to public scrutiny and interrogation. This answerability is not to some higher all-knowing standard but interactionally developed and localised, making it also fallible and provisional. In introducing the importance of judgements, commitment and engagement to the language of collective learning, I join others who argue for activist professionalism (Sachs 2000), a pedagogy of engagement (Zyngier 2006) and the importance of life politics that demands conviction and risk taking in seeking shared spaces for action and debate (Ferguson 2001; Giddens 1994; Sachs 2000).

6.5   Summary: Judging together at work

This chapter has discussed how the exercise of judgements provides opportunities for rehearsing accomplishments that can lead to productive learning. Judgements incorporate the principles by which individuals want to live their lives and the inferences they make about self and others. They reveal the scope and depth of commitment to a path forward and to the level of engagement with others implicated in generating unknown paths forward together. They provide important forums for developing learning, a form of learning that is practice-based and that varies with differing norms from unique combinations of givers and receivers.

At work, judgements are enabled and constrained by roles and rules of governing organisations. Judgements are grounded in the traditions of professions that specify how enacting the profession ought to operate. Judgements are also legitimised and authorised by the rules that specify how organisational activity ought to be performed. The appropriateness of 'oughtness' is influenced by contextual circumstances and the implications of making obligations to others. Individuals such as Andrew, Jeremy, Jack and Leon and groups such as the programs staff at CorrCo make judgements at work every day. Some are easy and

universally accepted. Most are difficult, requiring careful discrimination from among the salient features that are known at the time. What judgements provide within the social and cultural practices of work organisations are the forums through which choices can be made, choices that are bring along with them asymmetrical relational dependencies and obligations for commitment and engagement to change 'what is' into 'what could be'. Such connections of commitment and engagement contribute to learning that is justified as a shared endeavour that requires risk and conviction.

Throughout my findings chapters, Chapters Four, Five and Six, I have highlighted the importance of context in providing not only arenas for participation but the situational cues from which acting, talk and judging are determined. Context in the former sense, as background, situation or setting, is accepted more conventionally but this characterisation has the tendency to create boundaries within which learning is seen to be contained (McDermott 1996). Context in the latter sense, as in context-sensitive judgement or diversity of multiple contextual situations facilitating learning, is more indicative of the mutuality between actors and their environment (including other actors) that structure, transform and guide understandings of how to proceed. In the next chapter, Chapter Seven, I discuss conceptualisations of context that describe relations as metaphorical 'spaces between' that distinguish practitioners from each other, yet retain their interdependent connectivity through shared accountability in practice. I also use the physical space in that chapter to demonstrate how the more active term 'contextualising' integrates acting, talking and judging into holistic and organic forms of learning.

Chapter Seven
Contextualising Learning: Patterns of Relational Acting, Talking and Judging

'context' from Latin *contextare*, to weave together

Purpose and flow of this chapter

My three previous findings chapters have discussed how groups relationally act (Chapter Four), talk (Chapter Five) and judge (Chapter Six) in various ways that develop shared understandings of how to proceed in the practical affairs of organisational life. As Hackman (2003: 16) would say, I 'bracketed down' one level by focusing my analytic lens on relational elements that structure the meaning of ways that actors guide and respond to others. Anchoring and integrating these relational elements throughout the exemplars I used in these chapters are the local, particularised circumstances, often called context, that influence the basis upon which actors must judge and decide what to do.

The purpose of this chapter, Chapter Seven, is now to shift my analytical lens, or as Hackman (2003) would say, 'bracket up and out one level' to examine the integrating influence of *context*, and therefore answer my second research question on <u>how</u> and <u>why</u> groups use context to learn collectively. Context, situation and situatedness are frequently used synonymously. A situation is a particular combination of spatio-temporal ordering of actors and material resources that have certain relationships and constraints that connect them together. A situation may be interpreted as having several different contexts through which different meanings are ascribed. For example a situation could be a group of people making knots together. The people, the knots, the cords and any equipment used are all part of this situation.

In the context of rugmaking, the situation could describe a craft class where people are learning how to make rugs. Knotmaking is a core activity in the practice of rugmaking, certain knots create patterns and textures from which the

techniques for making different types of rugs can be learned. In the context of sailboat racing, knots are critical safety devices that enable sails to be securely affixed to battens and metal railings to make the sailboat move along water. The situation in this context could describe a crew who is learning the practice of sailboat racing through the activity of knotmaking as well as other sailing activities. Further, a latch hook used to make knots makes little sense in the context of sailboat racing whereas a bowline or clove hitch knot used in sailing has no meaning in rugmaking.

Situatedness as it applies to learning theory is more associated with the influence that local elements in the environment have on the learning phenomenon that is being studied. For example, how learning is embedded or influenced by cultural or organisational artefacts, power relations, organisational affordances or the community within which it occurs and experienced (Billett 2001d; Brown et al. 1989; Contu & Willmott 2003; Cook & Yanow 1993; Lave & Wenger 1991). In their seminal work on situated learning, Lave and Wenger (1991) provided an alternative to the then-prevailing view of cognitive-based learning centred in individual minds (Newell 1990).

As it applies to collective learning, I show in this chapter three treatments of context: 1) The implications of ignoring or relegating context to a passive background setting that does not influence learning, 2) The implications of considering context as sensitive to and influencing learning when it is positioned as situatedness, and 3) The implications of considering context as *contextualising* – not only influencing learning, but operating as an integral part to structure how actors learn from each other using their tools of acting, talking and judging.

Contextualising is processual and creative requiring ongoing adaptiveness. Actors may perceive that they are partially constrained by the affordances structured by organisations and workplaces influencing their level of individual engagement, as a situated view of learning suggests (Billett 2001a; 2001b). However, I aim to demonstrate that this implicit binarism still rests partially on a causative model of

learning (i.e. a limited set of factors in the environment that can be 'manipulated' implying cause and effect), that is too simplistic an explanatory model to account for the complexity of how actors collectively learn.

Instead, when actors contextualise with others, they integrate and juxtapose several dimensions of difference in relation – actor-to-actor, role-to-other-role, past-to-present, interests of self-to interests of others. Each actor must identify which data and connections (s)he deems relevant and salient from the current workplace situational setting. They do this through inferring (judging), talking and showing (acting) each other explicitly, symbolically and metaphorically in various ways. This form of sensemaking requires not only *individual* inferences about what is significant, urgent and important which requires personal responsibility and commitment. Critically, it also requires *collective* and collectively-generated inferences given the actor's participation within a unique set of relative positions (which I discuss later in this chapter as Bourdieu's (1985) *prise de position*) and web of relations.

Making patterned moves within this web of relations with other actors creates the metaphorical, dialogic and spatio-temporal possibilities for learning, giving a temporal shape or structure to learning (Orlikowski & Yates 2002; Shotter 2008; Shotter & Tsoukas 2007). They are significant patterns of alignment, tensions and unexpected changes in individual and collective perspectives, similar to the occurrence of a 'tipping point' in business (Gladwell 2000). Gladwell identified social epidemics, such as outbreaks of infectious diseases (e.g. spread of measles at school) or the dramatic drop in New York's crime rate in the mid-1990s, as phenomena that often behave in counter-intuitive ways:

> Things can happen all at once, and little changes can make a huge difference. That's a little bit counterintuitive. As human beings, we always expect everyday change to happen slowly and steadily, and for there to be some relationship between cause and effect. And when there isn't … we're surprised (Gladwell n.d.).

In this chapter, I argue that actors often adopt a pragmatic approach to considering their options for actions at work. Actors move toward modes of bounded

rationality (March & Simon 1958) and heuristic decisionmaking (Athanasou 2002; Kahneman et al. 1982; Kaplan & Schwartz 1977; March 1994; 1997) that 'satisfice' the practical needs and constraints of organisations and work (McCall & Kaplan 1990; Shapira 1997b). However, this does not necessarily imply actors choose only safe consensus-making approaches. In fact, human ingenuity often comes to the fore under conditions of adversity (McMichael 2001; Mohan 2003). In fact, 're-viewing' context as contextualising from within complex combinations of constraints, possibilities, past experience and new requirements to generate potential future actions recognises the creative and collective nature of activity intended to achieve interests of some kind that have recognised value.

In Section 7.1, I start by summarising and identifying the shortfalls of prevailing theoretical perspectives of context. Unlike earlier treatments of context as methodological containers that do not influence learning (Lakoff & Johnson 1980; McDermott 1996), existing sociocultural theories of situated learning embrace and identify the significance of context to learning (Bojesen 2004; Brown & Duguid 2001; Gherardi et al. 1998; Rainbird et al. 2004). Other researchers suggest that learning is holistic, organic, context-sensitive and has mutually transforming effects (Beckett & Hager 2002; Hager & Halliday 2006). I argue the need to go further: that the nature of these mutually transforming effects has specific temporal and emergent dimensions that are particularly useful when conceptualising collective learning. These effects characterise the nature of the field of play, the relative positions that change among actors and the cues used by actors to determine how to proceed to, and weave together, joint action (Bourdieu 1985; Elias 1970).

Moving from theory to practice, I use Section 7.2 to discuss why treating context as only descriptive setting or situatedness still suffers from limitations when considering the practice of collective learning. I use an entity-resource approach (where context is the background to collective learning) and an activity-system approach (where context influences collective learning) to hypothetically analyse

collective learning at SymCo. I demonstrate why I believe these explanations are insufficient to characterise the phenomenon I observed and researched.

In Section 7.3, I continue my discussion on the practice of collective learning by describing the similarities and differences in how groups in these three diverse organisations – a symphony orchestra, a commercial kitchen and a corrections centre – performed their social interweaving (Elias 1970) using contextual resources, cues and symbols they discovered with others. The learning that emerged from these examples of interactants at work had to accommodate difference in small and large ways. These actors formed creative and pragmatic patterns of alignment. They learned how to move forward through their talk, actions and judgements. The patterns, which are momentarily fixed at particular points in time-place, become the basis for new anticipated or future action when elements in their contextual environment including relationships with others change. And so the process continues.

Here, collective learning is not just about applying specific skills or technique to achieve the goals and interests of groups in organisations. Collective learning is not just about how the interests of individuals cohere and fit with others in groups; rather, it is about how the interests of multiple individuals extend each as individuals and in the process, creates a phenomenon that is more than the sum of the parts. Collective learning is about finding interactional ways in the world where actions, talk and judgements are meaningful representations of shared contributions that must be lived in longitudinal consequences with others (Shapira 1997a). 'By helping others become, you also learn to become yourself' (Johnsson & Hager 2008: 533).

Section 7.4 draws the implications of extending situated theory and practice of collective learning towards more interactional and emergent modes of relational learning. The complex patterns of configurations that are woven together from the multiple elements evident in each particularised contextual environment provide a myriad of potential possibilities for action. Adding to this complexity are the

different interpretations made by various actors about what is significant and relevant given their past experiences and current understandings. Somehow, actors working collectively must make sense and commit to a path forward through the ways they talk, act and judge with each other. As I characterise it, they contextualise the possible into specific activities, decisions and outcomes through weaving together interactional understandings and making commitments that enable pragmatic work to be achieved. In the ongoing organisational flow of work, each subsequent point of new possibility reconfigures Bourdieu's (1985) *prises de position* and relations among the relevant players and changes the cues from which they must next determine how to proceed.

In Section 7.5, I summarise the role that contextualising provides in generating the patterns and interlinked configurations from which collective learning emerges from interactions. The value of conceptualising collective learning this way for practice during transitions to work and within the practice of work is discussed in my final chapter, Chapter Eight.

7.1   Moving beyond situatedness: Conceptualising contextualising

As first discussed in my literature review, Chapter Two, I characterise an entity-resource view (Domain 1) as positioning the time and space of a contextual situation to be independent of learning, whereas an activity-system view (Domain 2) recognises local situatedness to be relevant to, and influencing learning. Situated learning research uses context in a conditional and contingent manner to frame the domain of focus (Arminen 2000; Bojesen 2004; Rousseau & Yitzhak 2001), so that findings are explained, influenced or particularly linked to the presence of contextual factors. Space encompasses physical sites providing infrastructural and material realisations of places of work within which learning could occur. Time is relevant if we allow the concept of learning as change in behaviour or understandings (Billett 2001c; Ormrod 2004), a temporally-defined progressive phenomenon. Space and time together-in-combination create *situatedness* where there are features in the spatio-temporal environment (e.g. how

managers allow or don't allow opportunities for employees to speak out critically about the organisation, or a key event like a past merger in the organisation's history that is still affecting current work practices) deemed by actors or researchers to be relevant to the phenomenon of interest.

In this section, I reiterate the benefits and limitations of conceptualising context as situatedness. I argue that although several researchers have identified that context matters and more context sensitivity is required (Arminen 2000; Beckett & Hager 2002; Bojesen 2004; Engeström et al. 1995; Hager & Halliday 2006; Kokinov 1997; Rainbird et al. 2004), we do not yet have good conceptual tools that incorporate the dynamic character of how actors determine contextual saliences in practice-based knowing (Kemmis 2004). I suggest that the process of contextualising involves a more complex combination of situational factors, inferences and invitational qualities that emerge from alignments and tensions that occur when actors interact to do collective work. Later in the section, I use concepts such as Bourdieu's (1985) *prise de position* for social topologies and Mead's (1932/1959) 'conditions of emergence' to provide my interpretation of why a temporal shape to learning through contextualising is a significant extension to existing theories of collective learning.

Context as situatedness and the importance of context-sensitivity

Situated learning researchers regard sociocultural conditions as enabling, restricting or providing affordances for learning, whether at individual, group or organisational levels of analysis at work (Billett 2001a, 2001d; Billett et al. 2005; Brown & Duguid 1991; Chaiklin & Lave 1993; Cook & Yanow 1993; Engeström 2004b; Lave & Wenger 1991; Lehesvirta 2004). In particular, Lave and Wenger's (1991) seminal work on tailors, midwives and quartermasters as communities of practice reoriented prevailing cognitive views of learning towards more embodied, participative and practice-based views. Such reorientations have resulted in expanded notions of the situatedness of informal learning and professional practice, and the processual, constructed and social nature of knowledge and activities (Beckett & Hager 2002; Brown & Duguid 2001; Chiva

& Alegre 2005; Engeström 2001a; Engeström et al. 1999; Eraut 1994; Hager &
Halliday 2006; Schatzki 1996; 2002; Schatzki et al. 2001; Tsoukas &
Mylonopoulos 2004).

Nevertheless, context too often remains treated as the descriptive, rather
unvarying background to the phenomena under discussion, as if it is a scope-
setting spatial or methodological container (Bereiter & Scardamalia 1996; Lakoff
& Johnson 1980; McDermott 1996; Wells et al. 2002). Such backgrounding
understates the transformative potential of context in influencing both the
outcomes and process of learning. Part of the challenge in analysing the
complexity of context is the search for universal explanatory power for what are
hypothetically an infinite number of different contextual situations. This challenge
is similar to Van Djik's desire for context to provide causal explanations for the
infiniteness of individual variation (Van Dijk 1999). However, this fruitless search
has been described as a characteristic of the 'modernist epistemological
predilection with generality and universality' rather than a celebration of the
'particular and local' in postmodern times (Beckett & Hager 2002: 161).

As Beckett and Hager (2002) also warn, there is a danger in privileging false
dualisms (universal/particular and global/local) in conceptualising theories of
learning. The inherent richness of diversity that context brings to learners should
be considered a strength rather than a distracting factor. Rather than only
reinforcing a postmodernist argument for difference and polyvocality, it is the
existence of patterns of similarity across disparate phenomena that give rise to
considerations of universality and vice versa (Beckett & Hager 2002: 136,
extending Burbules). In the struggle to reconcile difference, learners look for
similarities and vice versa. Difference and sameness gesture to each other and are
sources of productive tensions in similar ways to how Ricoeur (1991) discusses
the texture of narrative identity as understanding self through connections with
others.

Beckett, Hager and Halliday provide philosophical and practical arguments for the influential role of context in informal learning, or everyday practices at work (Beckett & Hager 2002; Hager 2005b; particularly chapter six in Hager & Halliday 2006; Halliday & Hager 2002). Their work draws upon Deweyan holism (Dewey & Bentley 1949; Garrison 1999) suggesting more organic forms of learning. They challenge conventional accounts of learning that represent knowledge as product cognitively held in minds and transferred in context-free ways. Indeed the basis of competency-based education and training in Australia is still driven upon such assumptions (Hager 2004).

In contrast to cognitive views of learning, these authors argue that learning is highly complex, multi-dimensional, revisable and holistic. Rather, learning is embedded in a web of nested agential and social relations, where context is an integral part of the means by which actors make chains of inferences about their situation with others (Beckett 2002; 2004; Brandom 2001, cited in Hager & Halliday 2006: 163). Yet these authors do not explicitly identify how chains of inferences enmesh with prior experience and understandings to change practice, learn work, or to generate learning that is conducive for particular combinations of interacting actors and not for others. Is it merely the absence of chains of inference that distinguishes certain learning groups from others? How can this judgement-based model explain two individuals who extract quite different inferences from the same work context?

It would seem that some attention to longitudinal aspects of learning would be important for understanding particular individual trajectories for learning (Tanggaard & Elmholdt 2007). Yet linear understandings of time in changing and learning work and practice are also problematic. Why is it that certain individuals and groups who have worked together for long periods of time still do not learn effectively, yet other individuals and groups who come together unexpectedly or for a short time, just 'click' in terms of flows of joint action and the transformative impact of such experiences? I believe the answer lies in the nature

of work as a public and communitarian affair (Kemmis 2004) and the inherent developmental role that experience provides (Dewey 1925/1958).

Work requires multiple individuals to coordinate their actions and talk to produce specific outcomes of interest and value to other collectives usually called organisations. In bringing together individuals who have unique combinations of past experiences, motivations, skills, attitudes and knowledge, organisations create the capacity to perform the required work. However, individuals constantly judge, act and talk while they perform work practices, activities, rules and protocols at work. Context does the work of integrating and providing the forums and resources actors need to proceed forward in performance, but such resources contain the unknown potential actions and responses of other actors. Therefore modes of discovery, co-construction and improvisation emerge from patterns of interactions among actors as they proceed. I next introduce some other theoretical contributions that I find useful in providing this more dynamic and emergent perspective for how actors contextualise.

Contextualising as 'staking out' patterned positions: Creating the temporal shape to learning

Certain other researchers have also characterised context as contextual webs of relations but from the perspective of fields of play that are locally contested sites of negotiation. For example, influenced by earlier work from Elias (1970), the sociologist Pierre Bourdieu (1977, 1980, 1985, 1989; Bourdieu & Wacquant 1992; Grenfell & James 1998) introduced two concepts: *field* and *habitus* which, *taken together and in relation to each other*, provide metaphorical richness. For Bourdieu, habitus is 'an acquired system of generative schemes objectively adjusted to the particular conditions in which it is constituted' and 'a system of structured, structuring dispositions which is constituted in practice and is always oriented towards practical functions' (Bourdieu 1977: 95; 1980/1990: 52). So rather than being simply understood as preferences, habits, or 'a simple formulation of biographical determinism', there is a broader sense of 'practices provoking dispositions' (Grenfell & James 1998: 15).

Field is a social arena where understandings and actions are played out: 'a relational configuration endowed with a specific gravity which it imposes on all the objects and agents which enter in it … simultaneously a space of conflict and competition … [exhibiting a] historical dynamism and malleability that avoids the inflexible determinism of classical structuralism' (Bourdieu as interpreted by Wacquant 1992: 17-18, italics removed). So in a Bourdieuian world, actors operate and construct their lives in social spaces. Their actions may be mediated by individual dispositions but it is their changing relative positions within that space – *prises de position* – that is at the heart of understanding groups and society as social topologies (Bourdieu 1985). Habitus and field are 'mutually constituting' and 'ontologically complicit' creating 'a sense of one's place' relative to others in social lived world (Grenfell & James 1998: 16; Hillier & Rooksby 2005: 21).

A field of play can be likened to a game such as in the sport of soccer. In soccer, the size of the ball, its rules of allowable uses, the various roles (initial positions) that players perform as striker, midfielder or goalkeeper and the mediating role of the referee are all contextual resources in this configuration used to deliver a recognisable game of soccer. If a rugby union player joins in this game of soccer, the actions used in rugby union matches may be inappropriate or disallowed in soccer (for example, running with the ball held in the arms) as indicated by authorised feedback (for example, referee issuance of a yellow card or a free kick).

In this analogy, any move by an individual player can be separately identified. But a particular soccer match or the game of soccer cannot be reduced to the actions of individual players or individual moves. They emerge from the mutual dependency that occurs among the players, the moment-by-moment judgements made by players to kick the ball in a certain way or to take advantage of a missed pass that has unanticipated consequences (such as creating the opportunity for the other team to score a goal). The consequences of past actions subsequently place the players in revised relative positions as experience is updated and becomes the new

starting point for further potential actions. Elias calls such relations webs of interdependence or figurations of many kinds (Elias 1970).

Here, objective structures and subjective experiences continually contour each other in inseparable and irreducible ways (Rocha 2003). As discussed in my own work with some of the authors who promote context-sensitivity (Hager et al. 2007; Johnsson & Hager 2008), to contextualise together surfaces the unique combinations of connections, the figurations of many kinds, among the relevant situational features and the multiple interpretations structured by actors' subjective experiences. When groups work together,

> they strive for joint understanding of their environment and the relevant conditions in order to coordinate actions collectively. This struggle for shared meaning is often made explicit through discourses individuals have with each other, the use of power relations among actors that shape behaviour … or a myriad of other contextual cues that help actors determine significance and relevance (Hager et al. 2007: 3).

In this collective acting and judging process (talk being less allowable in a game of soccer), the relative positions are forever changed and continue to change. Although a new game of soccer can re-commence with all the same players resuming their original role positions (e.g. striker, midfielder, goalkeeper), the subsequent game of soccer will proceed, consciously or unconsciously, building upon the now-revised experiences of the game just completed. Context thus transforms the relations and relationships among the actors and is itself transformed by actor choices and actions.

In complexity theory as it applies to the biological sciences, the concept of emergence describes a phenomenon where novel collective behaviour of multiple agents cannot be explained from studying the behaviour of individual agents (De Wolf & Holvoet 2004). In this particular exemplar of learning the game of soccer, team behaviour in a soccer match cannot be reduced to the individual moves of any one player, or indeed the sum of all individual moves. The macro (team) may comprise and encompass the micro (player) but their effects are not causally determinable from each other. However, there is simultaneously a further

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emergent effect of another type that identifies why considerations of temporality are important to learning.

Conventional understandings of time as clock time enable us to 'manage' time as intervals, separating out events in which we participate and that create our perception of 'history'. Domain 1 and 2 collective learning researchers often look to past performance for causative answers to 'fix' or explain performance in the present (Dixon 1999; Edmondson 2002; 2004; Race 2000). Mead in examining the role of nature in human lives challenges the artificial separateness of the past, present and future in theories of time (Mead 1932/1959). For Mead, the present is the locus of reality and the past is past *only in its relation to the present*, i.e. actors make sense of something that has occurred retrospectively but only from their position in the present. They revise their interpretations of the conditions that led them to their current present since they cannot go back to the past, it is irrevocable. As Murphy (1959: xvii) interprets Mead, the doctrine of emergence is novel and not completely determined from the past. This novelty is then a form of discontinuity that was 'unknowable' at the time of occurrence, but after its occurrence,

> we endeavor to reconstruct experience in terms of it, we alter our interpretation and try to conceive a past from which the recalcitrant element does follow and this to eliminate the discontinuous aspect of its present status. Its abruptness is then removed by a new standpoint … from which the conditions of our new present can be understood (Murphy 1959: xviii).

Such conceptualisations of temporality affect understandings of context in at least two ways. First, investigating collective learning in the context of work cannot be arbitrarily bounded to the research phenomenon under study – the school environment, the organisational priorities or the cultural dynamics at work. It 'leaks' to the broader lifeworld in which we all live because as actors, our dispositions to act have been shaped by past experiences, belief structures, our previously-chosen paths of action and their consequences. As Hager et al. (2007) observe:

> *Context provides the specificity in the immediate present but this specificity is porous and irreversible.* Much like a play, context provides the cast of characters, the scenes

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of relevance and the early plot elements. But unlike a play, performing in real life is not prescriptively repeatable. Actions are shaped by 'leaks' from past experiences and move forward as a function of those whom we encounter, thereby transforming participants and situations (Hager et al. 2007: 7, italics in original).

Second, if we accept Mead's doctrine of emergence, then both my research participants and myself as researcher were reconstructing our presents during our interactions with each other, consciously or unconsciously revising our interpretations of our pasts. Thus the context that was operating in our field of interaction, for example in the case of SymCo, included the participants' descriptions of what orchestral musician practice meant to them and how they were experiencing the program delivery. But importantly, they also included an additional overlapping field of play – the interview context, which brought with it, commonly-held understandings by people of how interviews typically proceed as initiating questions and responding with answers.

Yet as my unfolding of the group interview talk in Chapter Five suggests, Harry, Anna, another co-researcher and myself choreographed the dance of talk in unanticipated and emergent ways. The form and structure can be recognised as an interview by other researchers and individual statements can be analytically traced back to the individuals who said them. But the turns and directions we made in responding to each other created a shared experience that is uniquely determined from the four participants contextualising their perspectives of what was relevant and significant. The web of relations that we created took on a hybrid form – it can still be described as an interview, but it also became a learning experience about features of orchestral musician practice plus a shared appreciation about how music and mentors have affected each of our personal lives. Such a developmental experience reflects more than the sum of what we said and did in the group interview.

So we are always in the present as a relation to our past and as an avenue to our potential future (Josselson 1996; Mead 1932/1959). As Josselson observes, transposing Kierkegaard: 'We live life forwards but understand it backwards …

we choose those facets of our experience that lead to the present and render our life story coherent' (Josselson 1996: 35). In shaping our future, its characteristics and features are not fully-formed 'out there' waiting to be discovered. They are generatively created as a complex product and process of the interactions and inferences we choose to make together. Once enacted, we are in transformed relation to others and the contexts that structure our lives at work and beyond.

For Bhabha, the irrevocability of such experiences creates a hybrid third space:

> For me, the importance of hybridity is not to be able to trace two original moments from which the third emerges, rather hybridity to me is the 'third space' which enables other positions to emerge (Bhabha & Rutherford 1990: 211).

Shared understanding from actors working together is akin to sharing knowledge: it does not become depleted, marginalised or retain its same form when shared. In applying Bhabha's hybridity to New Zealand bi-cultural politics between the colonised (Maori) and coloniser (pakeha), Meredith sees this third space as a 'mode of articulation, a way of describing a *productive* … not merely reflective space that engenders new *possibility*' (Meredith 1998: 3, italics in original). It is this poietic (as if new) developmental character that contextualising together brings to understandings of collective learning. I now move from examining theories of context in collective learning to interpreting how my research participants contextualised work in their practice of collective learning.

7.2 Contextualising in practice from the limitations of context as descriptive setting or situatedness

The previous section examined from a *theoretical* perspective how the limitations of context, as 1) descriptive setting or 2) situatedness, could be addressed by moving towards 3) an understanding of actors constantly contextualising from cues and signals in their environment and from other actors. I now examine from a *practice* perspective the implications of these three treatments of context. In my three case studies, the groups I investigated were formed for different purposes to generate different outcomes and exhibited different structural properties or membership attributes that normally researchers oriented towards entity-resource

and activity-system approaches consider analytically significant for collective learning. Table 10 below summarises these differentiating characteristics.

Table 10
Comparative characteristics across the three case organisations

	Case 1 - SymCo: Symphony orchestra	Case 2 - KitchCo: Commercial kitchen	Case 3 - CorrCo: Correction centre
Purpose	Programs providing orchestral development experience and exposure for developing musicians.	Apprenticeship training to develop professional chefs in the vocation of commercial cookery.	Therapeutic program to rehabilitate chronic drug offenders.
Basis of work	Temporary professionals paid honorariums/stipends working with permanent employees in one workplace.	Apprentice chefs on temporary trainee contracts working with permanent employees at multiple workplaces.	Permanent employees on salary or contract at one workplace.
Duration of group work activity	Periodic participation spread over one year (approximately forty interaction days). .	Ongoing daily responsibilities spread over multiple months (apprentice placements typically between 6 months to 1 year).	Ongoing daily responsibilities spread over fifteen months.
Structural properties	• Periodic concert performances as orchestra members (DEV1) • Small group ensemble (DEV2). • Individual practitioners with specific instrument skills. • Charismatic artistic director.	• Participation and accountability for 'part' tasks performed in coordination with other parts/sections. • Group Training Organisation is legal employer of apprentice • Host employer is daily supervisor and assesses performance.	• Disciplinary functions work together in cross-disciplinary and co-facilitated ways • Individual practitioners with specialist professional skills and expertise. • Centre director as change agent.
Interests of workplace: Expected outcomes	• Better qualified source of casual musicians. • Improved pipeline and source of professional musicians.	• Efficiency and quality service contributes to restaurant reputation and economic viability. • Industry retains qualified resources.	• Reduced recidivism of drug offenders. • Validation of therapeutic jurisprudence model.
Nature of learning: Unexpected outcomes	• Becoming professional requires going beyond skill and technique to develop adaptive artistry. • Mentoring and guided learning develop dialogical benefits not just restricted to developing musicians (e.g. 'two-way learning street').	• Learning cooking skills, workflow and recipe/rule following are basic professional understandings but insufficient to distinguish a chef from those who 'just' cook. • An individual style develops from adapting and learning multiple methods that work for others.	• Ways of working differently outside the comfort of disciplinary competence are sources of learning and development. • Critical incidents (e.g. offender regression) create opportunities to change practice and to alter the nature of working relationships.

I use this section, Section 7.2, to examine the practice shortcomings of treating context only as descriptive setting or situatedness. I have selected the SymCo case to illustrate these shortcomings; analytically, using the other two empirical cases would be analogous and therefore they are not provided. In the following section, Section 7.3, I continue elaborating on my practice perspective to discuss how I interpret contextualising as a relational approach occurring in all my three empirical cases – SymCo, KitchCo and CorrCo.

The limitations of viewing context at SymCo as descriptive setting

A researcher following an entity-resource approach might summarise the context for collective learning by orchestral musicians at SymCo as follows (I created this extract for illustrative purposes but the data cited draws from an actual industry research study and a variant of this text was included in my actual research report to SymCo):

> In 2000-1[9], there were approximately 12,500 professional[10] musicians in Australia who were predominantly male (69%), worked and lived in capital cities (82%), on average were aged 45 years (50%) and earned an annual income from all sources of $41,100 (Tables 1,7,57,6,33 in Throsby & Hollister 2003). Similar to other artists, most musicians cannot make a living from their profession and must take on additional arts-related (e.g. teaching) or non-arts related (e.g. hospitality) employment to secure an economic living.
>
> In 1995, the artistic director of the education program at SymCo faced a potential resourcing issue in that the professional orchestra could limit its regularly-scheduled regional school tours due to international touring commitments. He envisioned a new development program and training orchestra that aimed to resolve the resourcing issue. More importantly, he wanted to provide a learning platform for supporting developing musicians in current tertiary studies (DEV1 program) and later recent graduates (called Fellows in the DEV2 program) through the difficult transition of understanding and experiencing the vocation to which they aspired.
>
> The training orchestra currently comprises 32 tertiary students who work alongside 15 mentors and 6 Fellows[11] to rehearse and perform a series of regional school tours as well as various paying concerts for the general public. Students and Fellows sit within the instrument section corresponding to their instrumental skill in a standard orchestral configuration. They are mentored by professional musicians who play the same or similar instrument during rehearsals and they also rotate to different seating positions that require performing different roles so they also learn from interacting with different musicians across different rehearsals and concert performances.

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[9] Data collected in this time period by Throsby and Hollister (2003).

[10] Throsby and Hollister did not isolate orchestral musicians from all other professional musicians, so their research statistics therefore overstate the size of orchestral musicians in their study.

[11] Five full-time equivalents since two individuals co-shared one position each for six months.

This contextual extract provides useful background information on the purpose and scope of the two SymCo development programs and some rationale as to how prevailing organisational issues at SymCo also link to broader industry concerns. An entity-resource approach would use the information in this extract to describe context as the physical setting and the objects contained in them; for example, the location where SymCo was conducting rehearsals or concerts for program delivery, the musicians, their types of instruments and the number of players in the orchestra. Further, these aspects while interesting descriptively, would not be used in any central way analytically to understand how collective learning works. Instead a researcher might typically examine individual characteristics of these thirty-two students and/or six Fellows or the group properties of how they operate within their instrument section or the full orchestra to explain collective learning.

One example of the limitations of an entity-resource approach that ignores the potentially useful role of context is illustrated by Wong's doctoral thesis on collective learning in teams. In her literature review, she states that 'as *conduits of knowledge*, social relationships impact collective learning by affecting the ease with which different types of knowledge are exchanged between individuals' (Wong 2002: 26, italics in original). One of her subsequent methods was to use a web survey of seventy-eight teams in four industries to hypothesise and test the correlation of what she called four team contextual variables (which are actually properties of groups) including variable H1 as social cohesion[12] (the other three were environmental scanning, participatory decisionmaking and task interdependency). She found a positive correlation for social cohesion, $\beta=.46$, $p<.001$[13] (Wong 2002: 121-123) and together with the results of her other

---

[12] As measured by a response on a 1-5 ('not at all' to 'to a very great extent') Likert scale to the question: 'How well do your team members get along with one another?'
  1. We are ready to defend each other from criticism from outsiders
  2. We help each other on the job.
  3. We get along well with each other.
  4. The members in this team really stick together.   (Wong 2002: 99).

[13] that is, a beta moving towards 1 shows that the probability of the hypothesis is accepted when the alternative hypothesis is true, whereas power moving towards 0 shows that the probability of rejecting the hypothesis when the alternative hypothesis is true.

variables as well as data from qualitative interviews of teams in practice, led her to conclude 'clearly this study shows that more cohesive teams engaged in higher collective learning' (Wong 2002: 165).

I interpret Wong's social cohesion finding as illustrative of cause and effect that is transferable to other contexts including my own case of orchestral musicians. Her findings might drive me as researcher to conclude, erroneously I believe, that the longer the groups at SymCo play together and get to know each other, the more they learn from each other. Or evidence like friendliness, socialising outside work and helping each other at work (e.g. showing the techniques of how to play difficult passages in repertoire, or the appropriate way to move your body during performances) might be indicators that could be observed to support higher values of social cohesion among group members in the orchestral musician context and therefore support statements of stronger collective learning.

The trouble with this approach is that it is at least insufficient. Social cohesion may be rated by different people differently depending upon their interpretation of what the term means. Yet if social cohesion is treated as an independent variable (Wong 2002: 121), the implication is that a person's prior experience, the technical design constraints of the type of instrument they play, the composer and style of repertoire they are playing, the venue they are playing in, the operational etiquette prevailing in this organisation and a myriad of other contextual variables that orchestral musicians told me in my fieldwork were important to learning their practice from others, are irrelevant. Without access to complementary qualitative data, it is difficult to unpack the nuances needed if claims about social cohesion's linkage to collective learning are to be substantiated as partially or universally applicable.

In not utilising the richness of context in an entity-resource approach to researching collective learning, I believe the experiential richness and complexity in human lives at work is masked and therefore mistakenly considered as unimportant. Humans are isomorphically similar, they belong to the same species

and are recognisably different from other species such as animals and insects. Yet importantly they are also independent practical reasoners (MacIntyre 1999) who approach life and work from unique often idiosyncratic perspectives of time-place positions (Emerson 1997). The material and specific texture of viewing context including the presence of other actors provides unique configurations of fields of play from which actors choose to use (or ignore) as cues to act, talk and judge in intentioned ways. It should not be discounted as forming only the descriptive background to the phenomenon of interest.

I next move on to explaining how viewing context as situatedness at SymCo is an improvement over viewing it as descriptive setting. I follow this to highlight how this improved treatment of context still suffers from a deterministic approach to contain the phenomenon and its role to a system of interest that is often more restrictive than expansive (Fuller & Unwin 2004).

The limitations of viewing context at SymCo as situatedness

In an activity-system view of collective learning, context is acknowledged as influencing learning with common examples of relevant contextual elements being cultural practices (Brown et al. 1989; Cook & Yanow 1993), power relations (Blackler & McDonald 2000; Contu & Willmott 2003; Holmes et al. 1999; Lawrence et al. 2005; Paechter et al. 2001), discourse and identity (Chappell et al. 2003; Sarangi & Coulthard 2000; Thornborrow & Coates 2005; Whetten & Godfrey 1998; Yanow 1999), fit within activity systems (Blackler 1993; Engeström 1999; 2001b; 2008; Engeström et al. 1999) or various combinations of all of the above or other factors.

Context as situatedness is an improvement over context as descriptive setting in that these contextual elements frame and denote a field of play as interpreted by participants and researchers to be relevant. Context as situatedness builds upon a socially interpreted and constructed view of reality where 'the settings for different activities are not determined by objective, physical features but provided by those who engage in them … [that is,] sociocultural concepts imposed on

different situations by the participants themselves' (Blackler 1993: 868). Importantly, this view still includes individuals as cognising subjects but context as situatedness now *decentres* the foregrounded attention on individuals placed in opposition to environment as background. Rather, it places individuals in relation, and as connected, to numerous other elements to the environment, often activities (Engeström 2008; Engeström et al. 1999), communities (Boud et al. 2006; Boud & Middleton 2003; Lave & Wenger 1991; Wenger et al. 2002) or practices (Nicolini et al. 2003; Schatzki et al. 2001) where individuals are active participants.

So returning to the analogy of the soccer match, we are not just describing any game of soccer or generic games of soccer where there are players, balls and soccer fields as objects. In a situated view, we might be talking about how the action flowed in a particular game of soccer played between the Central Coast Mariners and Queensland Roar Football Club for the Preliminary Final of the Australian A-League held on 21 February 2009 (in which the team I support, the Mariners, unfortunately lost) and in what ways the Mariners learned from this group experience to help them prepare for their subsequent Asian Cup matches in March.

As applied to the context of orchestral musicians at SymCo at the time of my fieldwork there, there are various useful contextual elements I uncovered through document reviews and interviews that provide more specificity to the descriptive background I previously provided. These influences help to 'situate' and particularise the learning possibilities of the teams I was researching (Figure 8 on the following page).

Figure 8
Situating the learning of developing musicians at SymCo

Industry Influences
• The competitive and economic pressures on musicians to find professional jobs in symphony orchestras in Australia
• The value of support and engagement in advancing musicians' professional development throughout their careers

Organisational Influences
• The need to employ proficient casual and permanent musicians who sustain the premier performance reputation of the orchestra
• The impending change in corporate structure (divestment from the government-owned parent) requiring more explicit mechanisms for managing artist performance and understanding musician practice

Situating the learning of developing musicians at SymCo

Musician Experience
• The growing interest of mentors to participate in the training orchestra and program even when not 'rostered' to participate, due to learning becoming more a 'two-way street'
• The difference between mentoring potential professional musicians as side-by-side engagement rather than teaching students pedagogically

Program Experience
• The ten-year history of musician feedback (surveys, talk) about tackling larger, more professional repertoire and needing more interactions with mentors
• The distinction between the needs of current musician students versus recent graduates, resulting in the creation of a complementary program (DEV2) to address the specialised multi-dimensional learning of these 'Fellows' such as audition preparation, stage presence and communications

Any one or several of these contextual elements could be teased out into their supporting micro work practices that could be interrogated through researcher observations or by analysing the relevant participant talk. Furthermore, some of these elements have more direct impact on the current actions, talk and judgements of any group of musicians than others. For example, the industry influence highlighting the difficulty in finding permanent professional employment after graduation, while supported by Throsby and Hollister's (2003) longitudinal research, is not particularly relevant (yet) to any DEV1 program

participant in current studies at Music School. Similarly, the fact that SymCo as an organisation was going to go through a divestiture (two months after the time I was conducting the research) that may affect future DEV1 program design and delivery is not relevant to the learning experiences of the DEV1 groups going through the current instantiation of the program. It is however, highly relevant to the learning experiences of the Managing Director of SymCo and the management team charged with making the divestiture happen.

Therefore, situatedness requires a selective delimiting of the who, what and when of collective learning. The 'texture' (Gherardi 2006) of this selective delimiting could be made even more explicit by highlighting aspects of orchestral musician practice at SymCo that appear more directly relevant than the industry or organisational influences. For example, the relevance of:

- Musician role and relationships to others – e.g. developing musician relationship to the professional musician mentor, program administrator, sponsor of the Fellowship position etc.

- Extent of mentoring experience – e.g. the experience of working with a professional musician who has never mentored in this program environment before versus someone who is considered to be a 'core mentor' – those musicians who are 'sincere' and 'committed' and 'can work out ways to help other mentors' according to Barbara and Melissa, program administrators at SymCo (sources: IN1.1 and IN1.10).

- Instrument – e.g. the nature of a trumpet and trumpet roles in symphonic repertoire requires the musician to play notes that build to chords that must blend among the trumpets playing in the brass section, whereas violin roles by sections (e.g. First Violins, Second Violins) in symphonic repertoire often play exactly the same notes during certain passages to create a sense of consistency and intensity. The first is learning a harmonic competence whereas the second requires adherence to accurate pitch that must still be adjusted for relative acoustic conditions of venue and the number of other string players.

So the work that context as situatedness is doing is to identify the particularised relevant circumstances that can help to frame the parameters of the phenomenon of interest. For example, if I was to use Engeström's (CATDWR 2009) cultural historical activity theory (CHAT) approach to analyse collective learning at

SymCo, contextual data could be structured to make explicit the tensions among activity systems that may have competing goals and objectives. For example:

- The economic resourcing system that SymCo uses for hiring casuals for its professional orchestra – and how the DEV1 and DEV2 programs could be viewed as training programs to secure this pipeline.

- The organisational activity system that houses the cultural etiquette and operational protocols for ways of 'professionally behaving' when working for SymCo.

- The mentor-novice dyad activity system that shapes the nature of knowledge, guidance advice and psychosocial relationships generated between professional musicians and developing musicians.

- The various instrument-based activity systems that shape the ways certain instruments are played, how the First Violins behave with the Second Violins, how they behave differently and interact differently with members of the brass section.

- The orchestra activity system that structures what a conductor does, how conductor-player interactions proceed, how the sections interact with each other during symphonic repertoire, how this varies during rehearsal in contrast with orchestra behaviour in a concert performance.

As I see it, the shortcoming of an activity-system view that uses situated learning is that researchers, explicitly or implicitly, still use a bounded and deterministic notion of a system of interest to frame the claims they are making about collective learning. The search for coherence appears to dominate research conversations using this approach; for example, whether there is fit within official or unofficial activity systems, how tensions are identified, how tensions require boundary-crossing, how tensions mark out 'zones of proximal development that … provide a motive for and indicate a capacity … for collective learning' (Blackler 1993: 872; Engeström 2001b; Engeström & Cole 1997; Engeström et al. 1995).

In Blackler's critique of activity theory (1993: 873), he identifies two separate but related issues in how organisations are theorised as activity systems:

- The tradition of activity theory arising from Soviet psychological scholarship (Vygotsky 1978) that had huge ambition (central to Marxism) to explain

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society in terms of deterministic causes and the inherent contradictions of capitalism, and

- Engeström and colleagues' continuation in subsequent generations of activity theory empirical studies in alerting participants to this concept of discord but remaining silent (despite embracing the Western action research tradition) as to participant reactions to, or implications for patterns of learning – i.e. there are tensions, so what next?

What Blackler is saying about the activity theory framework is that it can be useful to corral a set of issues that otherwise 'would only appear loosely related' (Blackler 1993: 878). But embedded in activity theory, there is an inherent assumption of rationality concerning organisations that actual everyday practice would refute, for example, life in the 'swampy lowland' (Beckett & Hager 2002: 91) or heuristic approaches that managers take to do 'whatever it takes' to get the job done at work (McCall & Kaplan 1990).

As applied to my study of orchestral musicians at SymCo, examining the tensions that exist between the various activity systems would not necessarily surface more insights about the ways that groups of musicians learn. For example, a tension could be hypothesised between the need to resource casual musicians so that the pipeline for the 'full-strength' orchestra at future SymCo performances is secured compared with requiring these casual musicians to know the appropriate organisational protocols at concert performances and playing in the SymCo symphonic style (often difficult to do off-the-job since they are hired on a contract basis for a specific performance).

Identifying this tension, in and of itself, is partially useful because it could lead to new practices to invest in training these musicians, or adopting specific requirements to provide casuals with substantive feedback at rehearsals or immediately after performances as new learning and development mechanisms. However, as it relates to how these casual musicians learn together under changing contextual circumstances of different composers, different repertoire, different venues or different-sized orchestras, the identification of high-level

activity systems tensions is less useful to these context-sensitive and constructed understandings of collective learning.

In this section, I have used the SymCo case to illustrate the limitations of using context as descriptive setting or situatedness. In the next section, I use an incident in the KitchCo case in particular, to demonstrate how the benefits of adopting contextualising as a process helps participants to collectively learn in emergent and interactional ways.

7.3 Contextualising in practice from the benefits of contextualising together

My three qualitative case studies are located in different industries, draw from different professional practices and exhibit varied organisational, group and individual characteristics. In this section, I argue that nevertheless, the actors in these case studies show similar modes of contextualising in drawing from their modes of understanding – acting, talking and judging – to stake out positions relative to others involved in their fields of play. As actors act, talk and judge, their positions change through developing interactional understandings. Interaction patterns are created that contribute to the group's collective learning as well as to understandings individuals may hold as practitioners. To illustrate how groups contextualise and why it contributes to collective learning, I discuss the KitchCo case in most detail by covering 1) what happened in the incident, 2) how actors contextualised during the incident, and 3) how contextualising can be also re-viewed from the perspective of integrating acting, talking and judging. I follow this with a less-detailed but analogous discussion of incidents at SymCo and CorrCo. In re-viewing the three case studies, I draw from a subset of incidents I have already discussed in my previous findings chapters, Chapters Four through Six (see Table 11 on the next page).

Table 11

Table 11
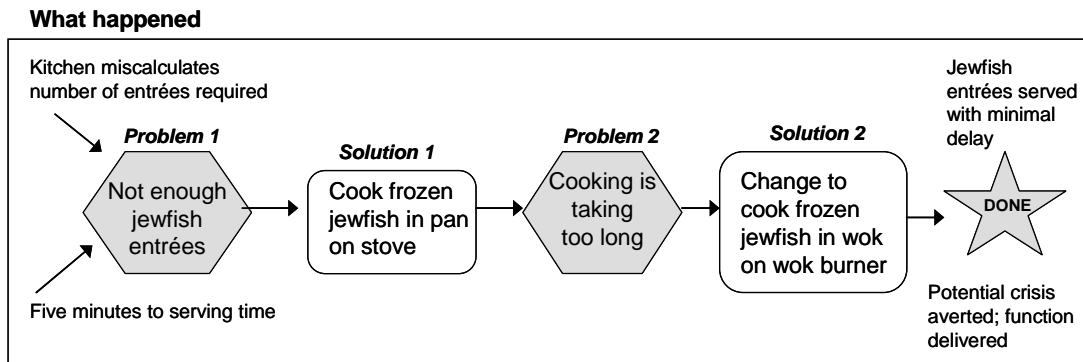*Contextualising examples from the three case studies*

Case study	Supporting reference(s)	Incident Summary
KitchCo	• Extract 1, Chapter Four	• Corey relates the jewfish incident to three other apprentice chefs and the researcher in a focus group
SymCo	• Figure 5, Chapter Four	• Collective performing in rehearsal (researcher account of a group observation)
	• Extract 2, Chapter Five	• Developing musicians, Harry and Anna, reflect on and discuss the same rehearsal experience with the researcher
CorrCo	• Extracts 1 and 2, Chapter Six	• A group of programs staff discuss the search incident and what it may mean to their working relations with custodial officers in the future (observed by the researcher)

Contextualising the jewfish incident (KitchCo)

The jewfish incident describes an evening dining situation when the function chefs discovered they were short of the right number of jewfish entrées just five minutes before the entrées were due to be served to diners. Corey, a second-year apprentice chef just finishing his day shift, was co-opted unexpectedly to help the function chefs manage the crisis. In Figure 9 on the next page, the top part of the diagram summarises what happened. The lower part describes how the chefs dynamically contextualised using locally-available resources to decide what to do 'in the heat of the moment'.

In this KitchCo example, the collective learning of Corey and his chef colleagues would be framed inadequately using only the descriptive parameters of the function dinner incident where jewfish is the main entrée (an entity-resource view of context as descriptive setting). It is framed better by analysing the situated activity details of the kitchen running out of jewfish entrée and the chefs having to invent an alternative solution that draws from their collective experience in order to avoid an embarrassing function outcome (an activity-system view of context as situatedness).

Figure 9
The jewfish incident at KitchCo

What happened

Kitchen miscalculates
number of entrées required

Problem 1
Not enough jewfish entrées

Five minutes to serving time

Solution 1
Cook frozen jewfish in pan on stove

Problem 2
Cooking is taking too long

Solution 2
Change to cook frozen jewfish in wok on wok burner

Jewfish entrées served with minimal delay

DONE

Potential crisis averted; function delivered

How chefs contextualised dynamically to move forward

• Function chefs co-opt Corey and others to help out in crisis: extra resources who can work in parallel, given urgency of task required	• Any remaining jewfish available? Yes but only frozen in fridge • Conventional cooking approach? Pan on stove • Sous-chef makes decision: go ahead • All chefs start to follow order	• How long likely to take? 15 minutes • Too long, will delay serving, fish already cooked will deteriorate • What's our option? - steam? - oven? - other?	• Woks sitting there? Yes • Experience at wok cooking? Some of us • Faster on wok burner rather than stove? Yes • Do it! • All chefs follow, watch each other, serve up and complete

However, collective learning is most comprehensively understood as a mode of shared connection-making, where actors weave together the relevant elements of their shared situation to develop emergent interactional understandings that drive actions and further consequences (an ecological-relational view of contextualising). Corey as a second-year apprentice chef had never been formally taught to cook jewfish in a wok, nor was he officially working the night shift who had responsibility for the function event. Yet in the 'hot action' of an in-progress commercial function, the chefs present including Corey, had to decide what to do when the kitchen ran out of jewfish entrées. The chefs drew upon known cooking practices and past experiences. They made inferences about relative cooking times of woks versus pans and contextualised their actions for the parameters of the 'here and now' work situation and available staff. If there had not been a single chef present who knew how to cook fish in a wok, or no woks or wok burners present in the kitchen, the jewfish-in-a-wok option would not have been realistic.
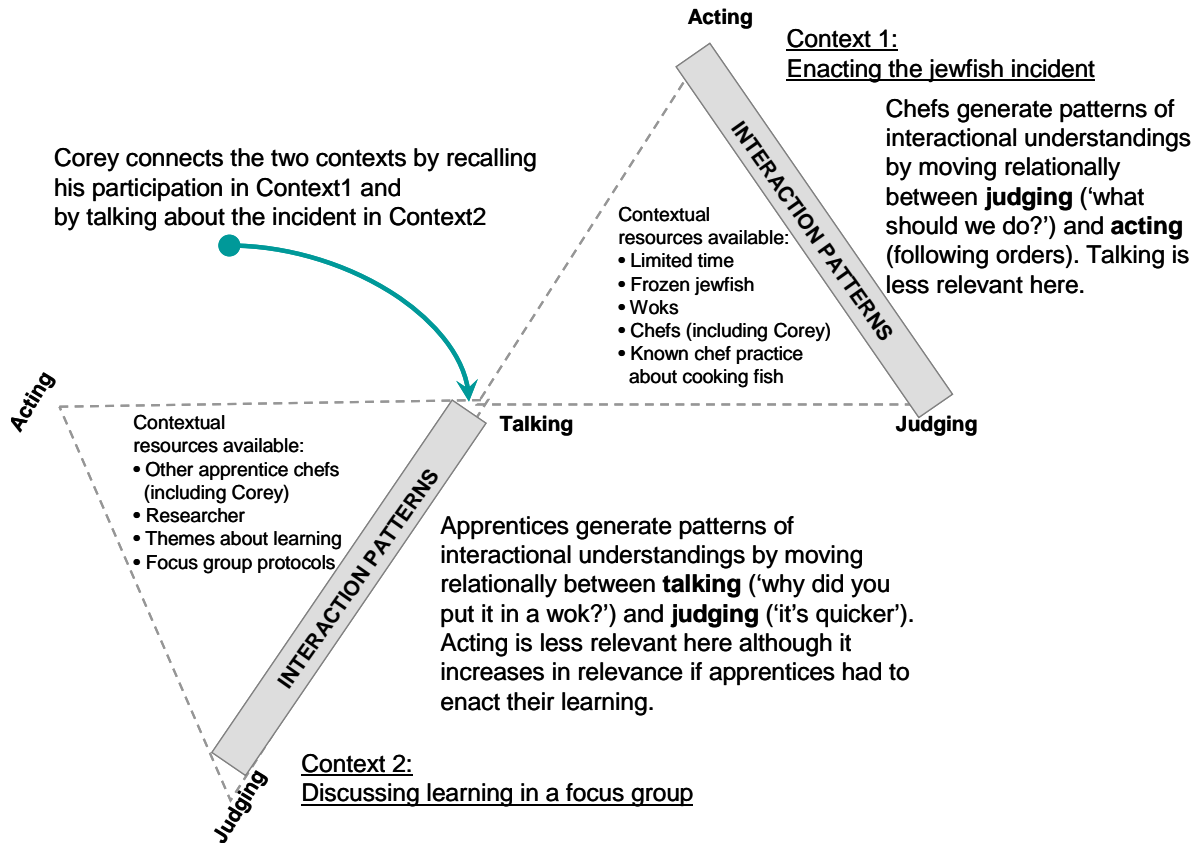
The chefs present would have contextualised from their available resources to implement another option that had the same outcome (i.e. function successfully delivered) with a different means, or a different outcome (i.e. function unsuccessful) with subsequent consequences (customer complaints).

Re-viewing the jewfish incident differently can also provide additional insights into how collective learning continues as an ongoing process of (re)contextualising the relevant resources around different communities of practitioners. Each community of human actors will bring different perspectives, subjective interpretations and experiences that modify the learning of its members in unfolding ways. For example, Figure 10 on the next page provides an alternative way of showing the jewfish incident as two interconnected instantiations of learning that emphasise different features of interactional understandings.

In Context 1 on Figure 10, Corey is a direct participant in the jewfish incident. He learns with others by developing interaction patterns, moving between *judging* (i.e. what options should we consider – stove? steam? oven?) and *acting* (carrying out the tasks associated with the decision made). When the pan-on-stove option takes too long, the group of chefs *re-judge* and make an alternative decision to use woks that is subsequently *enacted* through wok-cooking activities.

In Context 2 on Figure 10, Corey is a direct participant in a focus group about learning that I facilitated. Here the available contextual resources are different – they are other apprentice chefs, themes about learning and expectations about talking as a form of communication within focus groups. This time the jewfish incident is an experience that Corey recalls from memory and functions as a mediated means for explaining how he understands learning. The interaction patterns therefore draw mostly from talking relationally (i.e. the questioning from Lydia and the response from Corey) and the judging that arises from the meanings communicated through talk (e.g. the explanatory reasons for why a wok solution was realistic in the jewfish incident – 'because it is quicker').

Figure 10
Alternative view of the jewfish incident at KitchCo
from the perspective of interactional understandings

Acting

Context 1:
Enacting the jewfish incident

Chefs generate patterns of interactional understandings by moving relationally between **judging** ('what should we do?') and **acting** (following orders). Talking is less relevant here.

Corey connects the two contexts by recalling his participation in Context1 and by talking about the incident in Context2

Contextual resources available:
• Limited time
• Frozen jewfish
• Woks
• Chefs (including Corey)
• Known chef practice about cooking fish

INTERACTION PATTERNS

Acting

Talking

Judging

Contextual resources available:
• Other apprentice chefs (including Corey)
• Researcher
• Themes about learning
• Focus group protocols

INTERACTION PATTERNS

Apprentices generate patterns of interactional understandings by moving relationally between **talking** ('why did you put it in a wok?') and **judging** ('it's quicker'). Acting is less relevant here although it increases in relevance if apprentices had to enact their learning.

Judging

Context 2:
Discussing learning in a focus group

In summary, the process of contextualising in this KitchCo example is performing several significant purposes:

- It delimits the shared interpretive frames (Goffman 1974) through which actors must negotiate meanings and expectations about what is relevant and deserving attention in the current situation (e.g. the time-urgency of the current situation, eliminating other potential options that would take longer than the five available minutes from consideration).

- It provides the appropriate markers, signals or cues through which actors can interrogate their interactional understandings (e.g. the relevance of a wok as a cooking option is only relevant if some chef knows how to use it, so the judgement to use it must be queried against expertise).

- It connects actors to each other in facing a shared and common problem that needs resolution (e.g. Corey was not on night shift and did not have official responsibility for delivering the function, but he is also part of the community of chefs who understand what 'service' means in commercial cookery practice).

Contextualising the rehearsal incident (SymCo) and the search incident (CorrCo)

Both the rehearsal incident at SymCo and the search incident at CorrCo offer analogous examples of how actors contextualise together with others.

The rehearsal incident at SymCo can be re-viewed as two parts of a shared common experience: 1) Enacting the rehearsal event, with Harry and Anna as participant performers and myself and another co-researcher as observers, and 2) 'Dancing' the talk of becoming professional in an interview, with Harry, Anna, the co-researcher and myself as invited 'dancers'. Orchestral musicians contextualise at the rehearsal by integrating their human senses at appropriate times:

- Playing: using body movements that control the sound of their instruments and signalling through body language when performing passages of a composer work.

- Talking (and listening): to the conductor or between colleagues as a form of communicative action to explain or expand upon the intended musical style of the work being performed.

- Writing: annotating the guiding score with musical notations that hold meaning for the way a particular note or passage is to be played in concert later that evening.

The *meaning* of what happened at the rehearsal, what lies behind the activities that constituted the rehearsal *as it affects Harry, Anna, the co-researcher and myself as a group* is only interactionally developed by us through the mechanism of the later interview. If we had not shared this common experience and not scheduled the interview shortly afterwards, these interactional understandings in their specific forms (e.g. the selection of sentences used by participants at the interview) would not have emerged. Understandings of a certain kind were

contextualised among participating musicians for the context of the rehearsal (e.g. how the conductor wanted passage one of Tchaikovsky's Fourth Symphony to sound in concert that evening; whether the trumpets were too loud for the strings in a certain passage). Understandings of a different but related learning kind were contextualised by Harry, Anna, the co-researcher and myself when we participated in the context of an interview (e.g. the human connections made by 'experiencing' the rehearsal together; the activities around rehearsal events as indicative of what it means to become a professional musician).

Similarly, the search incident at CorrCo can be re-viewed as going beyond the talk that occurred among the program staff group. Participants contextualised their words and their body language actions (e.g. appeals to Amy as director of the centre), imbuing them with judgemental meanings and inferences about the motivations of their custodial colleagues. They developed interactional understandings about the solidarity of their programs group and about the governing principles of social justice that should shape ideal behaviours at the centre. Although what could be observed at the meeting was primarily talk, talking among participants became the interactionally-developed pathway and means through future actions could be considered (e.g. working relations with custodial officers that are based on 'being careful about what we say'). Thus contextualising not only structures the present environment so that meanings can be determined by participants from among the available resources; it also invites the possibilities for 'feedforwardness' of anticipated future actions (Beckett 1996, 2000).

Both the incidents at SymCo and CorrCo show how contextualising in order to decide together may make some meanings explicit whereas others remain implicit. Although language is enacted in a public space where 'nothing is hidden' (Wittgenstein, cited in Shotter & Tsoukas 2007: 13), our human ability to talk using words that hold variable meanings can both reveal and hide. Orchestra rehearsals can be revealed as ways to understand how developing musicians learn how to become professional. Talk of a recent search incident can hide the honesty
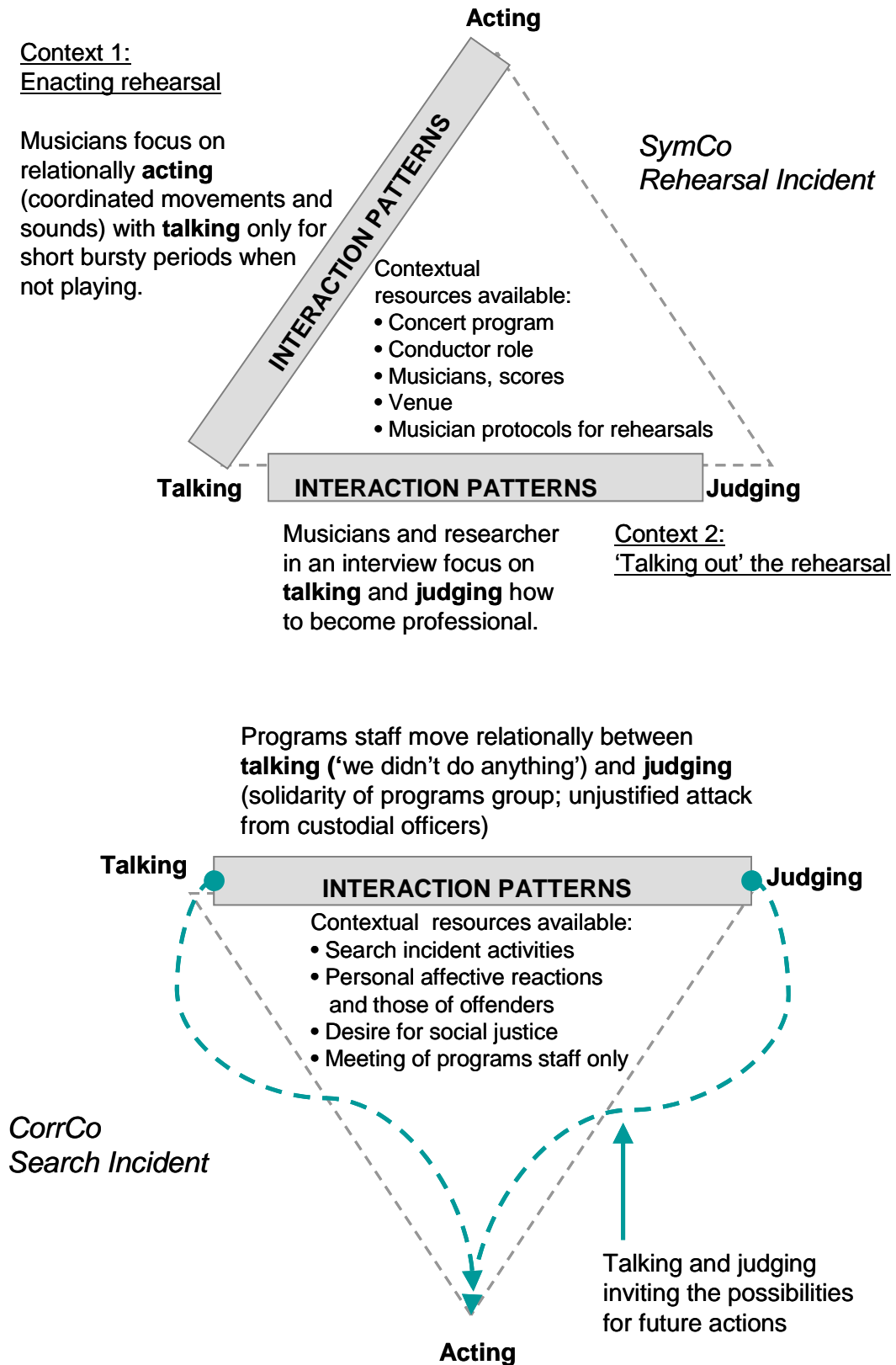
with which working relations are conducted between functions at a corrections centre. The challenge in parsing through these contested meanings is that

> they are difficulties *of the will*, rather than *of the intellect*, that is, they are orientational or relational difficulties, to do with how we spontaneously respond to features in our surroundings with appropriate expectations and anticipations as to how next to 'go on' (Wittgenstein, cited in Shotter & Tsoukas 2007: 8, italics in original).

In the SymCo and CorrCo cases, Figure 11 on the next page summarises how participants managed their relational challenges using the contextual resources available to them.

Using my three case studies, I have now illustrated how actors use their modes of understanding to dynamically position themselves in the unfolding actions of work. They weave local artefacts and resources with cues and signals they receive from others to advance their understandings; to learn what is relevant and what to do next. In the next section, I summarise the implications of actors using this dynamic form of contextualising for professional practice and the opportunities that are suggested for learning possibilities.

Figure 11
The rehearsal incident and the search incident
from the perspective of interactional understandings

Acting

Context 1:
Enacting rehearsal

Musicians focus on
relationally **acting**
(coordinated movements and
sounds) with **talking** only for
short bursty periods when
not playing.

INTERACTION PATTERNS

*SymCo
Rehearsal Incident*

Contextual
resources available:
• Concert program
• Conductor role
• Musicians, scores
• Venue
• Musician protocols for rehearsals

Talking   **INTERACTION PATTERNS**   **Judging**

Musicians and researcher
in an interview focus on
talking and **judging** how
to become professional.

Context 2:
'Talking out' the rehearsal

Programs staff move relationally between
talking ('we didn't do anything') and **judging**
(solidarity of programs group; unjustified attack
from custodial officers)

Talking   **INTERACTION PATTERNS**   **Judging**

Contextual resources available:
• Search incident activities
• Personal affective reactions
  and those of offenders
• Desire for social justice
• Meeting of programs staff only

*CorrCo
Search Incident*

Talking and judging
inviting the possibilities
for future actions

Acting

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7.4 Contextualising practice patterns and learning possibilities

In orienting my analytic lens on the concept of context, I have so far illustrated how context perceived as either descriptive setting or situatedness (Section 7.2) undervalues and masks the resources that actors use to learn how to proceed collectively. Context re-viewed as the means for contextualising (Section 7.3) provides a better sense of how actors actually determine what is relevant in their environment and how they learn *using relational means* to structure and frame what deserves attention 'in the moment' as a basis for proceeding forward.

Specifically through the KitchCo example, I demonstrate how collective learning can be characterised as a mode of shared connection-making that requires actors to act, talk and judge in interactive ways. This exemplar is particularly illustrative of what Orlikowski and Yates call 'temporal structuring [or] studying *time in use*, that is, examining what organisational members actually do in practice and how in such doing, they shape temporal structures that shape them' (Orlikowski & Yates 2002: 688, italics added). The standards of professional chef practice define the criticality of the notion of service to customers. When service is in progress across most commercial kitchens, activities are oriented using an almost-obsessive and tension-filled attention to deliver quality service. Previously-enacted mechanisms of practice help to structure the necessary actions, for example prior skills and workflow training, technique rehearsals and perhaps experience in handling crisis situations. Understandings of clock time (five minutes to when the kitchen must serve all the entrées) and event time (the importance of delivering the agreed-upon jewfish entrée on the function menu) are critical parameters of the practice of commercial cookery that shape expectations of performance, quality and reliability.

However, 'time-in-use' can also encompass the discontinuities inherent in alternative complex notions of time. Human actors are *creative* contextualising agents; they can remake practice sometimes idiosyncratically as it is not always

predictable <u>when</u> actors choose to change practice. There may be contingent circumstances, such as this jewfish incident, where kairotic opportunities arise 'by … people's sense of an opportunity at hand' (Orlikowski & Yates 2002: 690). In the jewfish incident, the chefs identified a kairotic opportunity to use a wok to accelerate the cooking of frozen jewfish and were able to avert a potential problem. While this event will never recur with the same contextual circumstances, the experiences of those involved remain shared, remembered in recall and potentially useful as an new cooking technique in each person's portfolio of skills.

Importantly, as evidenced by Corey's reflective recall of this past incident at the focus group interview I facilitated, it has remained for Corey a significant example of his unexpected learning, a different form of understanding under circumstances of 'hot action' (Beckett 2001). This learning emerged from his shared experience with others and made connections for him in enhancing his understandings of what constitutes the practice of a professional chef. In relating the story to Lydia, a first-year apprentice, Corey has now discursively signalled a new learning possibility, i.e. cooking jewfish in a wok and the reasons why this technique could be used. He has drawn attention to the possibility created by the juxtaposition of contextual requirements (e.g. jewfish on the menu), contextual resources (e.g. frozen jewfish available in the refrigerator, available wok cooking implements) and practice knowledge (e.g. understandings of cooking fish generally and jewfish specifically, how food cooks in a wok compared to pan cooking).

Through sharing his remembered experience of the incident, Corey's account provokes Lydia to engage in a relational dialogue in order to further her own first-year understandings as an emerging practitioner. As a result, Lydia and Corey's shared understandings about the learning possibilities in commercial cookery practice continue to form as a result of their discursive interactions in this focus group. These understandings may be later reinforced or altered when they next enact practice and have to contextualise what is relevant and deserves attention.

I argue that such moments of connections are only made from experiencing the 'inside' of practice. This is akin to walking the streets of a city and discovering its landmarks using all the human senses, rather than trying to orient oneself by viewing the streets laid out on a map (Shotter & Tsoukas 2007: 21). Participating in practice enables patterns to be created and recognised by 'practising others'. When practice requires a joint effort towards some end such as an organisational outcome, contextualising provides the shared basis to interpret together, to identify what is important and relevant in the present. Contextualising connects people to a common stake because deciding together generates outcomes that have consequences for all involved in the practice.

Human actors are subjective individual interpreters. In the joint affairs of work that involve and impact multiple others, contextualising provides an integrating mechanism that does not reduce options to one best practice solution, but opens up the creative spaces to multiple subjective interpretations of what is important and relevant. It is in these creative spaces that learning possibilities can be identified. These spaces are neither random nor infinite because they are anchored by those involved in shaping interactional understandings and the particularised circumstances requiring resolution. Importantly, contextualising within these spaces requires a shared commitment to discover and risk together, in essence as indicated by the Latin meaning of *contextare*, to weave together a shared destiny.

7.5   Summary: Contextualising together at work

This chapter has challenged the conventional view of context as 1) descriptive setting being neutral or irrelevant to learning, or 2) situatedness in that factors in the environment influence learning but in episodic or linear and progressive ways. As an alternative, I have argued for a dynamic conception of context, a processual view where actors contextualise by integrating their individual tools of understanding through acting, talking and judging to make collective sense of particular circumstances requiring specific engagement and commitment. At

work, many factors and issues compete for attention but without human actors, they remain inanimate.

The performance of work needs human actors to contextualise to make actions happen and to make them meaningful. Contextualising enables the factors located within a situation to be discriminated, selected for attention and identified as relevant. This discrimination process is subjectively interpreted, revisable and fallible. Therefore, when several actors contextualise together, alignments, negotiations and reconciliations of some kind normally occur. This is because the nature of work requires the responses from many others, whether they are other work colleagues, customers, suppliers or other stakeholders. The nature of work also requires some form of ends achievement, ends that rarely can be achieved without reference to other people or other resources. The valuable characteristic in human action is that ends can also be achieved through a variety of different means (i.e. equifinality) although some of these means are variously enabled and constrained at different times and in different workplaces.

Therefore, the challenge for learning at work is how human actors can effectively marshal and mobilise resources of several kinds – not only the fiscal and infrastructural resources that has been the dominant interest of businesses, but also human resources who are natural contextualising agents. In this chapter, I have discussed how actors perform their processes of contextualising at the research sites that have been the target of my empirical investigation. When actors contextualise, they generate patterns of interactions that indicate alignment, momentum, change and weaving motions that shift shared understandings forward. The consequences of adjusted understandings at both individual and collective levels, further revise the active configuration of play and what actors understand as newly relevant and deserving attention.

Relationships and relative positions among actors continue to change. They become the basis of new moves that must be taken to continue the experience journey of understanding. It is a journey that Melucci (1996) observes

as being enmeshed in multiple bonds of belonging created by the proliferation of social positions, associative networks, and reference groups. In simply conducting our lives, we enter and leave such systems far more frequently and in a far more rapid sequence than we did in the past. We have become … nomads of the present … we participate in an infinity of worlds … where everyday time is multiple and discontinuous [and we wander] from one universe of experience to another … [becoming] haunted by our new destiny of *choice* (Melucci 1996: 43-44, italics in original).

In the next and final chapter, Chapter Eight, I discuss the conclusions and implications of my findings to this investigation. I discuss what my investigation implies for practitioners such as orchestra musicians and apprentice chefs, who are experiencing transitions to work. I discuss what my investigation implies for practitioners such as the interprofessional care team at CorrCo who must align their diverse disciplinary expertise to create new rehabilitation practices at work. Finally, I summarise the phenomenon of collective learning as I have researched it in this investigation and the benefits of adopting a relational view to harness the wisdom of the many.

Chapter Eight
Conclusions and Implications: Harnessing the Wisdom of the Collective

'There are precious few Einsteins among us. Most brilliance arises from ordinary people
working together in extraordinary ways' – Roger von Oech.

'It takes each of us to make a difference for all of us' – Jackie Mutcheson.

(Zadra 2004: 62-63).

Purpose and flow of this chapter

This thesis has examined what it means to learn together when people act, talk and judge in related ways at work. People relate in automatic and unconscious ways all the time in life as well as in work; humans are naturally affiliative and social beings. Yet theories of organisations and work (Dixon 1999; Wernerfelt 1995) have foregrounded the visibility of objects, structures and systems to order and organise our daily lives at work. In my investigation, I have sought to 'recover' the relational in understandings of the theory and practice of collective learning. Rather than focusing on the objects that structure our lives – individuals as learners, groups and organisations as entities, time as discrete events, change as occasional anomalies – I have searched in the 'spaces between' for patterns of relational responsive interactions that create the meanings and paths from which people working together, proceed together.

In many ways, my planned research approach shares analytic similarities with previous research investigations that study the learning of collectives through qualitative case study methodologies. Yet in other ways, my practitioner experiential background, the contextual specifics of my three case study organisations, my emergent interactions with participants and research colleagues and my changing understandings about the phenomenon of collective learning during the conduct of this investigation, together have created a unique configuration of relations in time-space that will never again be repeated. This 'building upon the past yet as if new' character is particularly evident in my

investigation when relations of difference are juxtaposed. For example in Chapter Two, when I link principles of complexity science from the biological sciences (Thelen 2005) and alternative notions of time and change from social psychology (Mead 1932/1959) to provide a more transdisciplinary perspective to existing theories of collective learning grounded in organisational studies (Dechant & Marsick 1991; Fenwick 2008; Garavan & McCarthy 2008). Or in Chapter Four, when experts and novices (musicians and chefs) interact to perform practice together, how new dialectical perspectives formed from a common experience of working together have the potential to change practice for both experts and novices (e.g. Steve's 'two-way learning street', source: IN1.11).

This relational responsive orientation shapes a re-view of collective learning practice as provisional, improvisational and grounded in the dynamics of interaction. Actors are agentic beings who simultaneously draw upon the past, look to the future and work in the present (Emirbayer & Mische 1998). When actors work with other actors to produce the talk, decisions and outcomes required by their workplaces, the collective must accommodate an increased combinatorial complexity of past experiences and future expectations to negotiate the practical matters of everyday work life in the present.

Such a processual, relational and emergent characterisation of collective learning argues against conceptualisations of learning as product-oriented, predictable, prescriptive, bounded as 'best practice' or comprising a finite set of factors that can facilitate this learning. If this is the case, if collective learning is contextually dependent on specific patterns of interactions formed by particular combinations of actors, what can be said about the claims for collective learning that remain useful for practitioners and managers working in organisations, and for researchers searching for better conceptual models of collective learning? The purpose of this chapter, Chapter Eight, is to answer this challenge for the benefits and implications of my investigation.

In Section 8.1, I revisit my three research questions and the issues that are explored in this investigation. I explain how I first analysed the contribution of various modes of understanding – acting, talking and judging – that actors use to determine which contextual elements (including the responses of other actors) deserve here-and-now attention and how actors develop a *shared* rather than *individual* understanding. This answer to my first research question is then linked to illustrating my second research question regarding the integrative role that contextualising as a process provides. When actors contextualise, they not only continue to use their fundamental modes of understanding, but now they must determine their relative roles in the unique configuration that designates the current field of play.

Each relational move that an individual actor constructs, reconfigures the relations occurring in that field of play. In a field where all individuals are simultaneously enacting moves, the combination of moves *as it unfolds* creates a dynamic pattern of interactions that shapes and constructs the learning experiences of those involved. This changing pattern is uniquely generated from the configuration of actors working in a shared context at particular points in time, but each actor may also interpret relevance in different ways from the same context. The determination of a path forward therefore often requires joint negotiation, compromise and commitment, so other relations (e.g. power relations, local versus global interests) may come into consideration. The pattern of moves, like a knot made from several strings, is valued for its own purpose and aesthetic value; it may be constructed from the individual strings but it is not explainable with reference only to the individual pieces.

The unfolding nature of the patterned moves in fields of play is also matched by each actor also representing his or her 'present' as a complex re-interpretation of past experiences and current motivations and understandings. The importance of this temporal sensitivity and the role that temporality has in shaping the nature of collective learning recognises *emergence* as a core feature of collective learning as I have characterised it. This focus of my third research question recognises,

though, that emergence cannot necessarily be 'engineered' through linear stage or progressive models (Dreyfus & Dreyfus 1986); it does not necessarily emerge through the passage of clock time. Rather, emergent learning occurs in small or large ways that are meaningful, sometimes representing moments of epiphany for groups working in context.

Next, I identify the implications of re-viewing collective learning in relational ways through three *contributions* sections, each section dealing with a particular instantiation of practice. In Section 8.2, I address the implications of my findings for *transitions to work* although the meaning of this phrase has become increasingly problematic. 'Transition' has historically and typically implied a dedicated focus on youth and young adults <u>learning</u> at school and then a transition and transfer to <u>working</u> in organisations or other workplaces (Detterman & Sternberg 1993; Eraut 2004a). Yet Australian youth increasingly and simultaneously study <u>and</u> work through apprenticeships, work placements and part-time jobs (Billett & Ovens 2007; Drake 2006; Stokes & Wyn 2007). My research into the learning of developing orchestral musicians and apprentice chefs who are studying and working provide new perspectives on the nature of teaching in a guided relational sense, and notions of practice-based stewardship where mentoring is less a 'role' than the 'character' of a learning relationship (Darwin 2000: 210).

In Section 8.3, I focus on the implications of various professions learning *practice at work* as with the interprofessional care team in CorrCo. Here, I raise concerns about the ongoing education and industry focus privileging professional disciplines, skills and competencies, in contrast to developmental experiences shaped by neighbour interactions (Davis & Sumara 2006) that require reconciling diversity and new perspectives that others bring to groupwork. Here, it is not a matter of 'giving up' one's own functional role or strivings for disciplinary excellence (e.g. the CorrCo model was not trying to make psychologists out of custodial officers). Rather the challenge lies in how to create opportunities for contextualising in relationally-dependent ways that enable people to work outside

their comfort of competence (Hager & Johnsson 2008) and open up the spaces for 'possibility learning' (Zander & Zander 2000).

In Section 8.4, I discuss the implications of my findings for *researching* collective learning theory and practice. I identify the benefits and limitations of the research methods I planned and those that emerged. I discuss the challenges in examining relationality in organisational research that involves the researcher as an active 'interactant' who is nevertheless not quite a 'participant' and the issue that researchers can only ever capture a partial point-in-time perspective of a phenomenon that is arbitrarily scoped as collective learning at work.

Within each of these three contribution sections, I surface the limitations of my research as well as possible extensions to the research. Collective learning is a complex phenomenon and examining the 'in-betweenness' of relations generates several research challenges. As Gergen observed, 'we possess a staggering vocabulary for characterizing individual selves but stand virtually mute in the discourse of relatedness' (Gergen 1994: 214). I believe I have contributed to a research conversation that hopefully others can continue (re)making anew. As a final summary to this investigation, in Section 8.5, I restate my contributions to the fields of organisational studies and workplace learning and for the theory and practice of collective learning that characterise the organisational working lives of actors talking, judging and acting in a social world.

8.1   Revisiting my research questions and the issues explored in this thesis

My investigation has focused on researching how people learn through acting, talking and judging in related ways with others at work. The performance of work can contribute to short-term and long-term business success; the generation of sustainable organisational capability is increasingly dependent on the collective learning efforts of the many (diBella et al. 1996; Holmes 2002; Katzenbach & Smith 1993). Whether they are called groups, teams, taskforces, networks or other collective terms, they are integral to the generation of work as a public affair and

contributors to the notion of 'a learning society' (Fauré et al. 1972). As explained in Chapter Two, conventional collective learning literature has focused on analysing attributes of entities called groups or interrogating their coherence within systems of interests called organisations as the basis for claiming the presence of collective learning.

In contrast, my research investigation aimed to answer the following three research questions:

- How do groups relationally construct their shared understandings of learning through acting, talking and judging?

- How and why do groups contextualise to integrate acting, talking and judging into patterned ways of collective learning?

- How do relational practices condition the emergence of collective learning in groups at work?

In the tradition of interpretive human research that seeks to reveal the experiences and understandings of actors situated in their natural settings (Chapter Three), my investigation has focused on researching how practitioners they act (Chapter Four), talk (Chapter Five) and judge (Chapter Six) in relational responsive ways. These modes of understanding mediate *shared* rather than *individual* understandings because they usually require a response of some kind from other actors: action and reaction, question and answer, judgement and consequence.

The answers to the first research question must be complemented by considering the second research question of context, or as I restate it, how actors *contextualise* in order to learn what and how to proceed and why they commit to proceeding (Chapter Seven). Contextualising requires selecting which elements of everyday life are relevant in deserving 'here and now' attention, and which resources are appropriate at each point of connection with others. Actors must also integrate this selection process with prior understandings of experience and knowledge and attitudinal preferences driving motivations and interests as part of determining their commitment (or otherwise) to proceed.

This process of engagement and commitment with others occurs in ways that are cannot be bounded to just designated systems of interest such as the organisation where work takes place. Further, this process is non-deterministic and creatively co-constructed; practitioners cannot know nor control the consequences and impact of their engagement and commitment with others in advance. They do however, obtain ongoing confirmation or evidence of understanding by others, e.g. new talk or actions in response to prior talk, actions or judgements. In this iterative way, practitioners are continually relationally dependent (MacIntyre 1999) in living a common shared world with others. This patterned process of emergent unfolding of understandings is how I have characterised and researched the phenomenon of collective learning.

Finally, the notion of work has a special role in society and human lives because of the centrality of work (Cohen 2003; Parboteeah & Cullen 2003; White 1997) and its linkages to structuring related notions of organisations, organising, economic wealth and quality of individual lives and communities (Clegg et al. 2005; Delors et al. 1996; DiMaggio & Powell 1991). Importantly work as public, multi-faceted processes and outcomes results from collective achievements that are qualitatively dependent on the contributions of the 'collective many'. Learning is often considered as integral in shaping this qualitative difference and hence the interest and relevance in researching collective learning at/in/of work. I now move onto the first of three contributions sections that discuss what my findings imply for practitioners 'transitioning' to work.

8.2 Contributions to how groups learn during 'transitions' to work

In this section, I identify two contributions from my investigation: 1) challenging conventional notions of 'transition', novicehood and apprenticeship as time-dependent rather than contextually-sensitive and relationally-constructed; and 2) the importance of guided teaching or what I called 'practice-based stewardship' as

dialogic forms of collective learning that only arise from shared participation in practice.

The term *transition to work* has become increasingly problematic. Employers often perceive that an instrumental purpose of the education sector is to provide educational preparation for work (Hesketh 2000; Willis & Taylor 1999), a view that others regard as open to debate (Brown et al. 2003; Harvey 2000). This is particularly evident in the two industries within which my research participants – orchestral musicians and apprentice chefs – must navigate their careers. Australian cultural policy has been criticised as inconsistent and in uncertain transition (Craik et al. 2003; Stevenson 2000), significantly understating the value that this community provides to Australian society:

> The contribution of the artistic community in Australian life, when measured in cultural and social terms, is immense. Yet much of the value of this contribution is not reflected in the market prices that artists command when selling work – whether they are seeking to sell their labour … or the objects or works their labour produced … As a result, the economic return to artists remains stubbornly low, and by no means represents a true measure of their contribution to Australian society (Throsby & Hollister 2003: 79).

Similarly the chronic shortage of commercial cookery staff (in particular, professional chefs) in the hospitality sector has led to a specific national skills shortage strategy and action plan intended to redress the imbalance between supply and demand (DEST 2002, 2005; National Industry Skills Initiative 2001).

While these considerations are important to building Australia's vision as a creative nation and a knowledge nation (Department of Communications and the Arts 1994; Knowledge Nation Taskforce 2001), at the operational level, conventional models of dedicated study at school <u>then</u> dedicated work in industry are increasingly giving way to simultaneous study <u>and</u> work in contexts that overlap and co-occur (Stokes & Wyn 2007). What this means is that notions of learning, as shaped by the simplicity and separateness of institutions (university or technical institute for study versus organisation for work), roles (student, novice, worker, expert) and tasks (study, perform), are shifting towards more hybrid, context-sensitive and conditional judgements. Here, it is practitioners, rather than

fixed notions of what experts, novices, students or qualified professionals *should* be and do, who must discriminate within their contexts of use to determine what resources to deploy, what cues to consider and what paths to go down with the groups with which they are relationally dependent.

My analysis of developing orchestral musicians and apprentice chefs at work discussed in Chapter Four challenges conventional learning concepts of transition, transfer and novicehood. For example at SymCo, the work context of preparing for a forthcoming professional engagement of the DEV1 orchestra shapes how musicians choose to behave to one another. For Ray, the professional interaction is a side-by-side engagement, much like the playing of tennis doubles (source: IN1.8) whereas for Riva, it means not having to tell other musicians too much and expecting that they will listen and pick up things (source: IN1.3). For Ray and Riva who both also teach at Music School, these expectations change contextually when they adopt roles as teachers when interacting with students at school. In addition, although a professional musician can have a designated role of 'mentor', this role is relative and changes under certain other contexts, for example, when the 'novice' can teach the 'expert' (Steve's two-way learning street, source: IN1.11) and more dialogic notions of mentoring emerge (Bokeno & Gantt 2000).

Where study and work co-occur or learning is encouraged to emerge from the performance of work, this form of relationally-oriented learning with others becomes a form of guided teaching. But it is not teaching reified as only available through teachers in educational institutions or a form of prescriptive pedagogy focused on credentialising competency (Billett 2000). Teaching in the guided relational sense, as illustrated by the mentoring actions of professional chefs and musicians in my investigation, is practice-based stewardship: first, recognising the intimate relationship between teaching and learning that arises from human strivings for shared practical understandings and second, that through such developmental experiences, learning develops self, while also going beyond self to remake practice with others.

The quality of mentored teaching embedded in practice at work rather than out-of-context or off-the-job, is particularly influential for young adults at this formative stage of early adulthood. This is because these years are 'years of great promise as well as peril, a time when the young mind can open afresh to the stimulation of great questions and the nourishment of worthy dreams' (Daloz 2003: 20). The generosity of mentors in teaching novices 'the tricks of the trade' and in providing psychosocial support go beyond the requirements of participation in an official development program (e.g. at SymCo) or apprenticeship (e.g. at KitchCo). They can be characterised as generous acts of care at the particularly significant point of commencement of practice.

These relational practices promote dialogic forms of communications that, besides communicating the core rules and behaviours of practice, also pass along understandings of the values that professions and trades aspire to. It positions education as something that is 'intrinsically valuable rather than [only] practically useful' (Weatherby, cited in Daloz 1999: 129). The challenge for policy-makers and practitioners in educational institutions and industry organisations is to provide a broad range of cross-sectorial collaborative arrangements for young adults to learn these intrinsic as well as extrinsic aspects of the practice of work.

Within my investigation, the nature of performing repertoire by orchestral musicians or chefs working on à la carte dining service is highly interdependent, i.e. while individual contributions can be differentiated (e.g. the First Violin passage to Tchaikovsky's Fourth Symphony; the preparation of steamed green beans for the bean salad entrée dish), the outcomes can logistically and pragmatically only be generated collectively. These configurations could be classified as tightly-coupled (Orton & Weick 1990; Weick 1976).

A first extension to this study could be to research contextual arrangements where configurations are more loosely-coupled. For example, Engeström (2005) researched his concept of knotworking in 'fluid organisational fields' through his preferred lens of activity theory; an extension to my investigation could research

collective learning under loosely-coupled configurations from a relational perspective. The purpose would not be to simply classify whether some organisational situations are either tightly-coupled or loosely-coupled. Rather, it would be 'to start a dialogue about the domains, characteristics and patterns of coupling activities that contribute to individual and collective meaning-making' (Johnsson & Hager 2006: 21) in order to develop further insights about the nature of collective contextualising. Probing the diversity and variability of organisational configurations could provide better understandings about the pressure points or turning points (like the point of inflection in an arc or curve) that determine why a group of actors collectively determine to pursue certain paths of actions compared with others.

A second extension to this study could be to take a broader trajectory perspective to the learning development of groups. For example, apprentice chefs typically work in three to four placements during their four-year apprenticeship. Therefore they are exposed to shifting organisational cultures at each change of placement and obviously when their apprenticeship is complete. I was only able to briefly explore how certain events are particularly significant ('epiphany moments') in creating a participant's own characterisation of his or her temporal shape of learning (see Jack's reflections provided in Table 9 in Chapter Six). An extension could be to follow a cohort of apprentices longitudinally through their shifts in contexts and exposures to different groups at work to model experienced trajectories of development (Blackler 1993; Tanggaard & Elmholdt 2007) and to confirm their nature as nonlinear and emergent as indicated by my findings in this study.

I move next to the second of my contributions sections to discuss what my findings imply for practitioners already at work rather than 'transitioning' at work and in particular, to explore the impact of my study for practitioners working in groups with disciplinary diversity.

8.3   Contributions to how groups learn in practice at work

In this section, I identify three interdependent contributions from my investigation: 1) the notion that *collectively practising together* is different from coordinating different disciplinary or professional practices together; 2) that the mode of learning that arises from collectively practising is emergent and is more about the developmental benefits of juxtaposing *relations of difference*; and 3) highlighting the axiological dimension to participating together in practice as needing to be interactionally earned.

Unlike the orchestra musicians and apprentice chefs who are commencing practice, the CorrCo interprofessional care team is an example of an intact group that had been working together in close quarters for the best part of one year. Each individual in the correction centre is generally an experienced practitioner who brings established understandings, knowledge, skills and experience of 'being' a custodial officer, a probation and parole officer, a psychologist, an alcohol and drug counsellor, a medical practitioner or an education officer. But because the goal of the program is to implement new ways of offender rehabilitation where everyday work practices have to be creatively designed 'on the fly', the learning that I observed and researched was less about learning *about* (disciplinary or individual) *practice*, but importantly more about learning *about practising together* to achieve unknown and unanticipated futures.

How corrections staff talk and judge in relational ways has been covered in Chapters Five and Six. The exemplars I discussed illustrate how talk can be relationally choreographed to demonstrate the privileging of medical knowledge (e.g. Chris and Adam's dialogue about alternative medications for offender B, source: Excerpt 5 in Chapter Five) or its silence to signal a sense of exclusion (e.g. Linda and Carol's limited participation in the programs integration meeting and their perception that Education is only the 'rib' and not the central 'spine' of the program, source: Excerpt 6 in Chapter Five). Judgements made collectively can engender a sense of solidarity (e.g. the programs staff rehearsing 'future talk' given the social injustice they inferred from the fraternity of custodial officers,

source: Excerpt 1 in Chapter Six) or judgements made individually can extrapolate to infer collective roles (e.g. Andrew's own values and ways of working shaping his view that 'anyone who's coming here knows you're going to have to do more than just custodial work', source: Excerpt 4 in Chapter Six).

In professional practice and more broadly in society, there is ongoing comfort in the 'individualisation of occupational competence' (Boreham 2004: 6). Competence often provides the means by which people signal their knowledge and qualifications (Dall'Alba & Sandberg 1996; Velde 1999), achievements and contributions (Gherardi 1999; Harris 1993), and their social identity (Jenkins 2004). Our educational infrastructure is still dominantly oriented around subjects and the disciplinary knowledge needed for professional or vocational qualifications (Healey 2000; Webster et al. 2005). In industry, jobs often reflect these disciplines and are assessed through competency models (Fletcher 1997); through professional associations, the focus of continuing education is often to maintain the currency of that disciplinary competency (Curry & Wergin 1993; Sandberg 2001).

This privileging of disciplinary knowledge becomes problematic when multiple disciplinary views must be accommodated collaboratively. For example, the rhetoric of interprofessional care has often not matched reality due to clashes in value systems, different assumptions about causality and the power relations inherent in medical hierarchies (Hall & Weaver 2001; Irvine et al. 2002). What my investigation of the CorrCo case has surfaced is not the need to 'give up' striving for disciplinary excellence: the CorrCo model was not trying to make psychologists out of custodial officers, or education officers out of probation and parole officers. Rather, it is to recognise the value of alternative perspectives and knowledge grounded in other domains that others bring to groupwork.

Boreham (2004; 2007) suggests that the current individualisation of occupational competence should give way to a new vocabulary of competence that incorporates both individual and collective senses of learning and that recognises the

interdependent and emergent quality of sensemaking at work. Further, Griffiths and Guile (2003) have conceptualised a connective model that suggests that typologies of work experience needs to develop both vertically (to address specialist or disciplinary needs) and horizontally (to mediate different forms of expertise and the demands of different contexts). What my investigation has added to these considerations is how learning through work evolves through a series of developmental experiences often shaped by neighbour interactions that juxtapose perspectives of difference (Davis & Sumara 2006).

These interactions bring to the fore the contributions that disciplinary knowledge provide and juxtapose them in relation within the local and particular fields of play that practitioners face in everyday work life. When a custodial officer and psychologist at CorrCo must co-facilitate a new offender induction meeting, they find pragmatic ways to reconcile and connect their often diverse perspectives, past experiences and current understandings. They weave patterns of acting, talking and judging to obtain a shared form of meaning-making and in order to achieve the purpose of the meeting. This is similar to Ray talking about adopting a side-by-side form of engagement when performing with his developing musician. The relation of difference in Ray's case is one of experience and the enabling (e.g. value of prior participation) and constraining (e.g. unwillingness to consider new methods) perspectives that experience can connote. The relation of difference in the case of the CorrCo staff is one of diversity of disciplinary domains and the barriers that these domains can often erect, e.g. vocabulary, different values and the privileging of certain skills.

In a 'fluid' enterprise such as CorrCo, the power of disciplinary competence comes not from its rigid application but from what it can contribute across and in the overlaps. This mode may be initially uncomfortable but developmentally-useful because it causes the practitioner to self-reflect: to question the tacit assumptions that influence the boundaries of his or her professional practice. From this self-reflection, or challenge from someone outside the practice, can

come creative practice, practice that is remade for new circumstances, practice that reflects the dynamic nature of everyday work.

Working in the overlaps outside the comfort of competence (Hager & Johnsson 2008) provides opportunities to open up the spaces for 'possibility learning' and to imagine the 'art of the possible' (Zander & Zander 2000). Importantly it is a venture that can only be journeyed together with others. Working together in such ways does not reduce teamwork to matters of structure, trust, participatory decisionmaking or task interdependence as other collective learning investigations indicate (Dirks 1999; Hackman 1990; Oxford Jr. 1998; Wong 2002). My study suggests that collective learning must be interactionally earned through joint participation in practice with others and using modes of understanding to participate in ever-changing and complex configurations of play.

Two extensions to my research that analyse the developmental value of more complex forms of collective learning could be investigated. For example, two of the other case studies in the Informal Learning project involved groups created from networks and combinations of more than one organisation. In one case, representatives from three organisations provided complementary disciplinary and sectorial expertise through the integrating mechanism of a project structure (e.g. ProjCo). In the other case, a network of similar organisations with group members holding similar disciplinary roles in their organisations, needed to collaborate to generate outcomes that would benefit the entire network (e.g. NetCo). In both these cases, studying the contextualising patterns of these groups could uncover further insights into group pattern-making approaches when these additional structuring complexities are introduced into the field of play.

A first extension could be to examine ProjCo. But rather than focusing on cross-cultural organisational issues as an activity-system approach might design (e.g. tensions among the three organisational activity systems), a relationally-oriented study could probe how actors were able to utilise the available resources, including disciplinary expertise, from each other at certain points of play to

progress the project requirements forward. In particular, how the juxtaposition of disciplinary interests that crossed organisational and sectorial boundaries, required local and particular reconciliations among interests and needs and in what ways actors enacted these context-sensitive commitments.

A second extension using the NetCo case could productively explore the multi-organisational network configuration to surface further complexities. The research I performed in the Informal Learning project focused on the informal learning practices of one particular network of student administrators within a network of educational organisations. The compliance reporting that the student administrators, as a common disciplinary group, had to implement was shortly about to impact the operational practices in each educational organisation at the time of my study. Other provider disciplines such as the teaching faculty, the marketing and finance functions as well as the student user community are ongoing stakeholders in this complex work configuration. A further study that builds upon the findings of this preliminary study could investigate the interactional practices of many combinations of transdisciplinary working within this network of networks, and compare and contrast various trajectories of development as I suggested in the previous section.

I now move onto the third and last of my contributions sections that discusses what this study implies for the practice of researching collective learning.

8.4   Contributions to researching collective learning theory and practice

In this section, I identify three contributions from my investigation to researching collective learning: 1) the value of enhancing conventional case study method with other analytical methods such as interactional sociolinguistics used in my study; 2) the importance of participatory action research principles and developing a heightened awareness of the need to continually situate the researcher within many communities; and 3) the longitudinal benefit of research that goes beyond

arbitrary decisions to delimit the parameters of research investigations for pragmatic reasons.

My research shares a similarity with other investigations that focus on the importance of relations in organisational research (Bradbury & Lichtenstein 2000). Methodologically, although case study remains the foundational qualitative method to capture the interpretive and constructed experiences of participants in their natural work settings, I found that additional analytic tools had to be used to foreground the interactions representing actor pattern-making in collective learning as I have conceptualised it. Interactional sociolinguistics as an analytic method was useful in identifying the relational moves that are embedded in the micropractices of talk and in opening up my analytic lens to the broader sociocultural influences that shape how talk progresses between conversational participants (Gumperz 1999).

In my analysis of the dance of talk of Harry and Anna in Chapter Five, the microanalysis of their responses to my questions provided cues to each other as to further responses (e.g. Anna's copying of the form of her response about her background and her view of learning from others after hearing Harry's response). At this level of discourse analysis, relational dependence is unconsciously and naturally enacted through human talk and would have been missed if the research focus had been only on interpreting the broader content was *what* participants say in their interviews rather than *how* they say it. How people talk viewed through an action-reaction/response lens forces the researcher to pay attention to patterns that are embedded in the talk and to interrogate actors' underlying understandings and rationale. Nevertheless, Morgan (2008: 138) cautions in her own investigation using interactional sociolinguistics, that additional multiple data methods (in her study: observations, interviews, artefacts and material resources) are usually needed to gain a more complete understanding of the phenomenon of interest.

A second methodological contribution and implication arose in parallel to my conceptualisation of collective learning as an emergent phenomenon, that is, the

unfolding nature of research practice and the value of participatory action research principles and methods (Carr & Kemmis 1986; 2005; Reason & Bradbury 2006a). Here, I acknowledge how my interactive involvement as a researcher with many others particularly structured the temporal shape of progress in relational studies of this kind. I was an 'interactant' with others in a particular field of play called researching collective learning practices at my research sites, but I was also simultaneously a 'participant' in the field of play called doctoral education research. I held multiple roles in multiple communities and I shaped, and was myself shaped, by these interactions throughout the period of my research.

The interventionist nature of action research highlights the diligence and the ethical care that must be taken when conducting human research and participating in everyday work. My research experience also highlights the need to build in more periodic self-reflective mechanisms for recording how insider/outsider or researcher/participant interactions (Bartunek & Louis 1996; Reason 2003) affect the progress and direction of research, rather than research method positioned as a primary means to accomplish the outcomes of research.

My third contribution addresses the fact that my participants had working lives before I started my research and continued their working lives after I had left the research sites. We changed each other's understandings of practice, learning and each other in small and large ways through our interactions during the time of research. Yet what I researched and foregrounded through this investigation captures only a small portion of the relations that continue to circulate in these participants' lives and mine. For example, my ongoing interactions with Barbara and Melissa at SymCo, now entering its third year after the conclusion of my research there, continues to provide unexpected intrinsic as well as extrinsic benefits. For example, Melissa's recent comments support my views, first discussed in Chapter Five, of how text can continue to mediate interactions:

> Your document and research and the opportunity to talk things through with [the chief investigator] and [you] has been invaluable – we were using it with our new fellows just this week! (Melissa 2009, email comm., 29 January).

The outcomes from the SymCo case and the relationships that emerged from my interactions there contributed to my consultative contribution on a broader Australian national study investigating the strategic direction of orchestral musician development (Cook 2008). Research (and thesis investigations) for pragmatic reasons must be arbitrarily scoped to have a beginning and end; however, they generate longitudinal benefits and implications that emerge in unexpected and unplanned ways.

Finally, I observe that in using Beckett, Hager and Halliday's judgement-oriented models of workplace learning (Beckett & Hager 2002; Hager & Halliday 2006) to build my investigation on collective learning, their work rests on the work that case study method must accomplish in surfacing the nature of judgements that 'stand in' for learning. This assumption relies significantly on the interpretive expertise of the researcher and researcher team. For relational studies of this kind, the case study method could be enhanced by additional analytic methods that directly link the modes of understandings (e.g. talk inferring judgements, talk-to-action-to-talk and various other combinations) and help to interrogate their characteristics and interdependencies through more visual modes of representation.

Researching relationality in collective learning as an emergent phenomenon generates a sense of participating in knowledge in motion (Nespor 1994) and valuing the dynamics of participation. It is a complex affair that benefits from ongoing research conversations that bring critical transdisciplinary or transpractice perspectives of difference to harness the wisdom of the collective in productive ways. Relational studies of this kind, as illustrated by my investigation, thus help to elaborate

> the complex and uncertain material, social, discursive and historical conditions of practice … [they also illustrate how] practitioners should prepare themselves to engage in participative, collaborative transformation of their practices in ways that anticipate and build solidarity among those participating in the discourse … and build legitimacy for the decisions they take in the endless critical task of transforming practices to meet the changing needs and changing circumstances of different times, different people, and different places (Kemmis 2004: 423).

8.5 Summary: Re-viewing collective learning as contextualising moments of connections

This chapter has summarised the conclusions, contributions and implications of my investigation into collective learning, conceptualised as responsive patterns of interactions that emerge from actors acting, talking and judging in related and contextualised ways at work. Through empirical research in an orchestra, commercial kitchen and corrections centre, I have illustrated how actors signal their ways of proceeding through the ways they act, talk and judge with others. These signals together weave complex and emergent patterns of interaction that are anchored by the local particular circumstances and that structure what is deemed relevant and deserving of attention by the group.

Actors come to particular circumstances only 'in their present' as complex re-interpretations of their past experiences and current motivations and understandings. Therefore learning how to proceed forward collectively must recognise the unique configuration and relative positions that each actor provides to the local situation. Although individual actions, talk, and judgement can be differentiated, it is the entire configuration *created from relative positions and relational responses* that characterises the phenomenon I am calling collective learning.

This characterisation of collective learning benefits practitioners who are commencing work because they become engaged in activities that can benefit society in building wealth and knowledge. Yet importantly, collective learning at work is also about building understandings of the heritage of practice that develop the instrumental aspects of practice but also its obligations to the stewardship of values and change. The guided, relational and mentored examples of musicians and chefs at work in my investigation demonstrate practice-based stewardship in action and contribute to research described as the 'practice turn' to organisational studies (Schatzki et al. 2001). These mentors have the potential to transform the perspectives of the musicians and chefs they have affected through their interactions, at a particularly influential stage of practitioner development. My

findings enhance existing models of apprenticeship and notions of mentoring as dialogical forms of communications and practice (Bokeno & Gantt 2000; Guile & Young 2001; Tanggaard 2007).

For practitioners already at work, my investigation has surfaced the developmental opportunities that arise from encountering relations of difference when disciplinary practices are juxtaposed to achieve common outcomes. Collective learning under these circumstances can be difficult to negotiate because the heritage of disciplines privileges standards of excellence, norms and rules of practice for consistency within domains rather than in transdisciplinary ways. Yet the generativity that can arise from adopting the perspective of others is a key ingredient in how practices change, are remade and remain relevant for current times. These findings contribute to supporting notions of connective models of workplace learning (Cunliffe 2008; Griffiths & Guile 2003) and nonlinear conceptions of how change unfolds in organisations (Falconer 2002; Rowe 2008).

The process of contextualising moments of connections with others is one that is essentially poietic. Such moments are filled with mystery, potential and promise. They recognise that we live a shared and dependent life with others where interactions provide essential sources of human understanding and collective learning.

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Appendix 1: Overview of Case Study Organisations

In my role as researcher on the Informal Learning project, I researched eight organisations to examine informal learning practices in Australian workplaces using case study analysis. In reviewing the suitability of this portfolio for my investigation on collective learning, I eliminated two organisational case studies that were developed from review of public inquiry documents, given they did not permit analysis of participant interactions. A further organisation, a small business travel agency consisting, was rejected because roles and activities were strongly influenced by individual characteristics, not providing sufficient richness to study the phenomenon of collective learning. Finally, two organisations were multi-organisational networks that contained considerable complexity more suitable as an extension to the core purpose of this study and they were rejected for pragmatic reasons.

In the three remaining organisations, group work activity was significantly interdependent, coordinated or performed among several participants, allowing for group interactions to be experienced by participants and for these interactions to be observed by a researcher. I provide brief descriptive profiles on each organisation and identify any special considerations related to handling consents for researching these sites.

Case 1: SymCo – A symphony orchestra

SymCo is a leading state symphony orchestra located in a metropolitan city of Australia. Originally, all state orchestras were originally part of the Australian Broadcasting Corporation (ABC), a not-for-profit company funded and subsidised by the Australian federal government. From 1996 onwards, each state orchestra devolved into separate legal entities (ABC subsidiaries) and adopted a more commercial orientation with an independent Board of Directors, its own business plan and a focus towards generating alternative sources of funding (such as sponsorships, private donations and ticket revenues) separate from state and federal governmental funding sources. From January, 2007, a few months after

this case study was completed, SymCo and the other state orchestras were fully divested from the ABC and now exist as fully-independent companies responsible for business plan strategy and execution and accountable to independent Boards of Directors. At the time of divestiture, the source of governmental funding for SymCo represented less than fifty percent of its annual revenues.

SymCo is an organisation of over one hundred and thirty individuals in which the professional orchestra comprises fewer than one hundred musicians on permanent full-time salaries or part-time contracts. Casual contract musicians are also hired as need arises to fill positions for certain concert repertoires or given periodic resource shortages. One of the benefits of being selected as a Fellow for the DEV2 program is priority selection as a casual resource when temporary positions became available in the professional orchestra.

As with most symphony orchestras, the orchestra is led by a conductor and artistic director and structured into various sections:

- Strings
- Woodwind
- Brass
- Percussion, and
- Piano and harp (as required).

Supporting the operations of the orchestra and the organisation are functions such as:

- Orchestra management including technical, operations, production and stage support.
- Artistic operations including artistic administration, education and library services.
- Commercial relations including box office, marketing and sales, customer relations, recording relations.
- External relations including fundraising, public relations, business development.
- Business services including facilities, finance, payroll and human resources.

There are currently two development programs in existence within SymCo:

- DEV1 for developing musicians currently still studying in tertiary institutions (called Music Schools in my investigation) – this involves periodic participation covering rehearsals, concerts and school tours during one calendar year and calculates to approximately forty program days.

- DEV2 for recent graduates from Music Schools who have not yet found full-time permanent employment – this involves commitment to intensive activities covering ensemble playing, rehearsals, master classes, training activities, concerts, school tours and tutoring during one calendar year, and provides priority eligibility to take up casual work in the professional orchestra. Participants in the DEV2 program are called Fellows.

The DEV1 orchestra performs schools tours and general public concerts and comprises developing musicians participating in the DEV1 and DEV2 programs and professional musicians who function as their program mentors. The group of Fellows perform chamber music concerts in addition to participating in DEV1 orchestra performances.

The original rationale for the DEV1 program grew out of a dilemma that the artistic director had for delivering school tours from existing resources in the professional orchestra, given new conductor requirements for international touring. DEV1 was identified as a resourcing solution, by using developing musicians to supplement professional musicians on school tours. However, the director's educational vision also envisioned creating a development environment that could permit professionals to mentor novices and to allow these developing musicians to experience the professional practice of orchestral musicians. DEV2 evolved from the organisation's experiences with DEV1 delivery and targeted recent graduates to further improve assimilation as casual or potentially permanent members of the professional orchestra.

My research investigated the interactions of developing musicians and professional musicians participating in both DEV1 and DEV2 programs. At the time of the case study research, DEV1 had been in existence for ten years and DEV2 for five years.

Case 2: KitchCo – A commercial kitchen

KitchCo is a privately-owned organisation that provides a full range of commercial catering services to institutional clients. The company obtains multi-year contracts to run various commercial kitchen operations including cafés, fine dining restaurants and convention, function and bulk production kitchen sites. KitchCo is also a host employer organisation; in the Australian workplace, this means they have a business relationship with one or several group training organisations (GTOs) that oversee the training and placement of apprentices for the hospitality industry including the segment of commercial cookery.

In its accountability as a host employer organisation, KitchCo agrees to take on commercial cookery apprentices at all levels (years one through four) and train them in the vocation of commercial cookery as part of a negotiated work placement that can last typically between six months to one year. The legal and administrative employer responsibility for the apprentice remains with the designated GTO but most apprentices would regard their immediate supervisor at the host employer organisation to be their daily 'boss', since these individuals set apprentice work schedules, provide daily feedback and perform apprentice performance assessments during and at the end of the work placement. The GTO pays the apprentice a contracted apprentice wage (typically starting about $7 per hour before loadings) set by state government legislation and recovers a separate amount for the cost of apprentice work from the host employer.

GTO organisations must provide periodic reporting on apprentice statistics to the federal government and the state governments in which it has operating licenses. There are approximately five hundred vocational occupations covered by about one hundred and fifty GTOs in Australia (Group Training Australia 2006).

Kitchens are typically governed by a hierarchy that structures who performs which roles and activities, particularly during the critical times where food is prepared for customers through à la carte orders that are not known in advance

(known as *service*). This hierarchy is based on historical rules of French cuisine operations (Johnsson & Hager 2007: 29) as follows:

- Executive chef (in larger kitchens)
- Head chef
- Sous chef (similar to an operations manager, driving today's priorities)
- Chef de partie (for each section, e.g. desserts, hot larder, cold larder)
- Demi chef (deputy to the chef de partie)
- Commis chef (typical level after trade qualification), and
- Apprentice chef (pre-trade qualification).

Modern kitchens will vary this hierarchy depending upon total size of the kitchen staff (so in smaller kitchens, the executive chef may be the head chef and sous chef) and its culinary focus (e.g. fine dining restaurants are typically larger and will retain this hierarchy compared to smaller cafés that are more informal and typically ask culinary staff to perform multiple roles).

GTOs that employ and manage apprentices, finding them placements within commercial kitchens, are typically small organisations; in my investigation, the GTO employed few than thirty staff. These staff provide marketing, reporting and administrative support for apprentices throughout their apprenticeships. Field advisors who monitor the progress of apprentices in host employer organisations are typically ex-chefs who still practice on a casual basis and therefore also act as informal mentors to the apprentices. They help to resolve any difficulties of fit between the apprentice and the placement kitchen and ensure that apprentice interests (e.g. accurate payment for services rendered, appropriate adherence to occupational health and safety standards) are met in compliance with the legal apprentice contract.

My research investigated the interactions of apprentice chefs and professional chefs at their workplace placements. In addition to participant consents from apprentice chefs and professional chefs who volunteered to participate, I obtained a company consent from the GTO that employed the apprentices. I also obtained

company consents from the commercial kitchens where I observed chefs at work since these were separate organisations from the GTO.

Case 3: CorrCo – A corrections centre

CorrCo is a corrections centre that is implementing a pilot endeavour of the therapeutic jurisprudence model in one Australian state. The endeavour is positioned as an interagency effort delivered jointly by the state governmental corrective services, justice and health authorities. At the time of the case study, the pilot had passed its first year anniversary of operations with most of the staff having been part of that full year of operation. The centre has the capacity for eighty male drug offenders; at the time of the case study, staff at the centre were treating over thirty drug offenders.

The basis for the drug treatment model at the centre is a holistic reorientation towards pro-social behaviours with the offender taking personal accountability for living what he documents at the beginning of treatment as a customised 'good life' (Ward & Brown 2004). However in contrast to conventional individual rehabilitation models (see critique by Ward et al. 2007), treatment is also founded upon an organisational view of change, emphasising pro-social behaviours in interpersonal and multipersonal interactions among all the various communities of staff and offenders at the centre. Treatment is therapeutic (Wexler & Winick 1991) in that, although both rewards to reinforce positive behaviour and sanctions to punish negative behaviours are used,

- rewards are intended to outnumber sanctions
- the continued practice of modelling pro-social behaviours leads to forward progression through later stages of rehabilitation and opportunities to be released into the community, and
- improved states of offender psychological well-being.

The centre comprises about fifty employees on permanent salaries and fixed-year employment contracts, run by a director who has professional qualifications as a

psychologist. Employees at the centre represent a combination of various healthcare professions including:

- Alcohol and drug counsellors
- Custodial officers
- Education officers
- Medical doctors and nurses
- Probation and parole officers
- Psychiatrists, and
- Psychologists.

My research investigated the interactions of professional rehabilitation staff working at the corrections centre but not the offenders (ethics approval for this population would have taken an additional year). Given CorrCo is part of a larger governmental authority, I applied for and received separate ethics approval for my investigation prior to the commencement of the case study. I obtained company consent from the director of the centre and participant consents from employees of CorrCo who volunteered to participate.

Appendix 2: Consent Forms and Participant Information Sheet

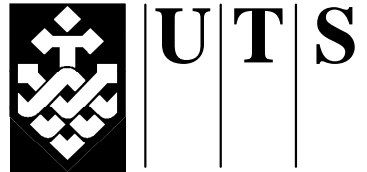I obtained two types of consent forms from each case organisation: company consent and participant consent. In addition, I generated a participant information sheet to explain the scope and details of the research study that encompassed both the Informal Learning project and my doctoral research.

The two consent forms and participant information sheet used for my investigation are included in this appendix.

Faculty of Education

CONTEXT, JUDGEMENT AND INFORMAL LEARNING AT WORK: AN INVESTIGATION OF FACTORS CRUCIAL FOR ENHANCING PERFORMANCE
(UTS APPROVAL NUMBERS UTSHREC04/97A and 05/164A)

I _____ *(authorised representative)* on behalf of
_____ *(company name)* agree to participate in the UTS research project 'Context, judgement and informal learning at work: an investigation of factors crucial for enhancing performance' being led by Professor Paul Hager. Funding for this research has been provided by the Australian Research Council. This project also incorporates research for Mary Johnsson's doctoral thesis on 'Practical judgement as a new mode of learning to build organisational capability'.

I understand that the purpose of this study is to investigate learning that enables people to perform well in the demanding aspects of their occupations. As a result of our company's participation, a case study of our selected learning initiative _____ (*description of learning incident scope*) will be documented. This case study will be developed through participant interviews and review of company materials as required. The list of participants will be mutually agreed between our company and the UTS research team. Individual participation is purely voluntary.

I am aware that I can contact the Chief Investigator, Professor Paul Hager (tel. 9514-3826) if I have any concerns about the conduct of the research, or the university's Research Ethics Officer (tel: 9514-9615 citing UTS Approval Numbers 04/97A and 05/164A).

I agree that the research data gathered from this project may be published in a form that does not identify our company or individual participants. The research data may be used for the purposes of analysing or documenting findings for the Australian Research Council funded research project and/or Mary Johnsson's PhD thesis.

_____   ____ /____ /____
Signature (authorised company representative)   Date

_____
Full Name

_____
Title

_____   _____
Company Name and Primary Address Details

_____   ____ /____ /____
Received - Signature (researcher or delegate)

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Faculty of Education

CONTEXT, JUDGEMENT AND INFORMAL LEARNING AT WORK: AN INVESTIGATION OF FACTORS CRUCIAL FOR ENHANCING PERFORMANCE

I _____ *(participant's name)* agree to participate in the research project 'Context, judgement and informal learning at work: an investigation of factors crucial for enhancing performance' being led by Professor Paul Hager. Funding for this research has been provided by the Australian Research Council. This project also incorporates research for Mary Johnsson's doctoral thesis on 'Practical judgement as a new mode of learning to build organisational capability'.

I understand that the purpose of this study is to investigate learning that enables people to perform well in the demanding aspects of their occupations. It will produce case studies of learning incidents in a range of workplaces.

I understand that my participation in this research will involve an initial one-hour interview with researchers from UTS. The details of the learning incident will be checked with me via phone, email or an additional interview. In addition, I might also participate in a group discussion on the learning incident or be observed in a group work situation.

I am aware that I can contact Professor Paul Hager (Tel. 9514-3826) if I have any concerns about the research. I also understand that I am free to withdraw my participation from this research project at any time I wish and without giving a reason.

I agree that Professor Paul Hager, Assoc. Prof Jim Athanasou or Mary Johnsson have answered all my questions fully and clearly.

I agree that the research data gathered from this project may be published in a form that does not identify me in any way. The research data may be used for the purposes of analysing or documenting findings for the Australian Research Council funded research project or Mary Johnsson's PhD thesis.

_____   ____/____/____
Signature (participant)

_____   ____/____/____
Signature (researcher or delegate)

NOTE:
This study has been approved by the University of Technology, Sydney Human Research Ethics Committee. If you have any complaints or reservations about any aspect of your participation in this research which you cannot resolve with the researcher, you may contact the Ethics Committee through the Research Ethics Officer (ph: 9514-9615), and quote the UTS HREC reference numbers 04/97A and 05/164A. Any complaint you make will be treated in confidence and investigated fully and you will be informed of the outcome.
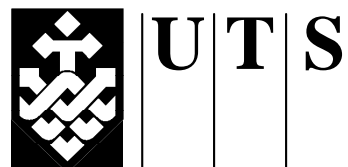
UTS

Faculty of Education

CONTEXT, JUDGEMENT AND INFORMAL LEARNING AT WORK: AN INVESTIGATION OF FACTORS CRUCIAL FOR ENHANCING PERFORMANCE
(UTS APPROVAL NUMBERS UTSHREC04/97A and 05/164A)

Thank you for your time and your intention to participate in our study. The following information is provided to help you understand the aims and objectives of our research.

Who is doing the research?
This research is being conducted by a research team consisting of Professor Paul Hager, Assoc. Prof. Jim Athanasou and research assistant Mary Johnsson from the University of Technology, Sydney (UTS) in conjunction with Prof. John Halliday from the University of Strathclyde.

What is the research project about?
This project investigates learning that enables people to perform well in the demanding aspects of their occupations. We are looking for case studies of learning in a range of workplaces.

What does the research project involve?
We are producing various case studies of judgements and informal learning in challenging workplace situations. This will involve a policy, a program, project or an initiative that challenged your organisation.

With the permission of your organisation we will make some on-site visits. Some key people within your organisation have been nominated to participate. Please note that participation is entirely voluntary. The main phases are listed below:

(a) We will agree with your organisation on the program that will be investigated. We then set about to describe the program using information or records from the organisation and with the help of key participants. This is where you might be involved. Your involvement will typically consist of a one hour interview with two members of the research team from UTS.

(b) We will produce a description of the program from all the information we have obtained and then check our description of this with you. Most participants will be interviewed once in a personal or small group interview, with follow-up via phone, email or as necessary, face-to-face. Participants may also be observed performing work in a group situation.

What are the aims of this study?
These findings will produce a theory of learning at work. We think of learning at work as essentially a growing capacity to make appropriate judgements in changing and novel situations. We are trying to describe how the workplace context influences this learning. Developing a sound theory of workplace learning is very important because current theories are of limited value for education and training.

Why have I been asked?
You have been asked because your organisation nominated you.

Do I have to say yes?
You do not have to say yes. It is not a problem if you do not wish to participate.

What will happen if I say No?
Nothing will happen. We will thank you for your time so far and will not contact you about this research again. We will not provide a list of those who participated or those who did not wish to participate to your organisation or anyone else.

If too many people in an organisation are unable to take part then we shall not proceed with the description of the critical incident in that organisation.

If I say YES, can I change my mind later?
Of course, you can change your mind at any time and you do not even have to say why. We will thank you for your time so far and will not contact you about this research again.

What if I have any additional questions?
Please contact Professor Paul Hager on 9514-3826 or Associate Professor James Athanasou on 9514-3712 or our research assistant, Mary Johnsson on 9514-3836 if you want to know more.

What if I have concerns or a complaint?
If you would like to talk to someone who is not connected with the research, you may contact the Research Ethics Officer on 02 9514 9615 (give UTS Approval Numbers 04/97A and 05/164A).

Appendix 3: Observation, Interview and Document Data

This appendix provides supporting detail for the data collection process in my investigation. It includes:

- The interview question guide used for semi-structured questioning during individual interviews and group interviews.

- For each of the three case study organisations, details on the timing and scope of observations and interviews conducted and documents reviewed. I also include the coding conventions used to identify sources of data and excerpts referred to in the body of the thesis document.

For each case study, I collected organisational and external documents to gain an understanding of the local and global settings in which participants worked and learned. Although covered by the company consent, I specifically requested permission to obtain organisational documents and verified the nature of security access that the participating organisation required – for example, I accessed SymCo's set of program archive materials (D1.1) only through review of the materials on-site at the organisation's location. For other materials, I gained permission to make copies of the materials to take off-site and maintained these materials in secure locations as required by my ethics clearance.

Interview Question Guide

Questions mainly centred on understanding the nature of the critical incident or activities identified as the scope for the case study.

- Describe the critical incident ……………………. that occurred in your organisation. What exactly happened? What was the context of the incident? What was its outcome?

- What was your involvement in the process? (probe: official role, informal role, other levels of participation)

- What were the key issues that needed to be addressed? What significance did they have?

- What were the main effects of the incident on you, your work, your group, your company?

Questions mainly centred on understanding the experience of judgements and learning stimulated by the critical incident/targeted activities.

- What steps led up to the final decisions for dealing with the critical incident?

- Were there any intermediate decisions?

- When, why and how was the final decision made?

- What range of responses was available?

- Can you describe what you learnt from this process? What about group and organisational learning? (probe: risks, trade-offs, internal employee, external customer, reputation issues)

- What recommendations would you make for the future (e.g. to avoid this type of incident from occurring again) and why?

- Would your organisation respond differently to a similar incident in the future? If so, how?

Questions mainly centred on group understanding and experience of the judgements and learning stimulated by the critical incident.

<researcher summarises a construction of the incident>

- Is this recollection of this incident accurate? If you were telling someone else a story about it, what would you change and why?

- How did the interactions among the individuals during the incident contribute to the judgements made? (probe: clarified my thinking, made it more difficult, someone to talk about it with).

- What were the major factors that resulted in the collective decision being made for the company? (probe: tradeoffs, company interests vs. individual interests).

- How would you all as a group expect to respond to a similar incident in the future?

- In what ways did discussing the incident together today clarify or update your understanding and learning of this incident?

Thematic questions used for focus group discussions about the learning that arose from experiencing the critical incident/targeted activities.

- How do you describe your process of learning?

- What actions from others shape how you learned at work? (probe: showing, telling, doing, correcting, other)

- In what ways have the actions of others been useful to you and your learning?

- What types of learning were surprising to you? Why?

Case 1: SymCo Observations, Interviews and Documents

Observations of group interactions:

Code	Case	Group activity	Date
G1.1	C1	Orchestra rehearsal with both developing and professional musicians	17/10/06
G1.2	C1	Chamber group rehearsal of developing musicians with director of program	18/10/06
G1.3	C1	Chamber group concert of developing musicians to general public audience	18/10/06

Individual or small group interviews conducted:

Code	Case	Part. Id	Participant Role and Pseudonym (if used)	Date
IN1.1	C1	P1	Program administrator Barbara	21/09/06
IN1.2	C1	P2	Developing musician	05/10/06
IN1.3	C1	P3	Professional musician Riva	10/10/06
IN1.4	C1	P4	Developing musician	11/10/06
IN1.5	C1	P5	Developing musician Cody	17/10/06
IN1.6	C1	P6	Program director/conductor	17/10/06
IN1.7	C1	P7	Developing musicians Harry and Anna	17/10/06
IN1.8	C1	P8	Professional musician Ray	19/10/06
IN1.9	C1	P9	Developing musician Dean	23/10/06
IN1.10	C1	P10	Program administrator Melissa	26/10/06
IN1.11	C1	P11	Professional musician Steve	30/10/06
IN1.12	C1	P12	Developing musician (email only)	23/01/07

Supporting documents reviewed:

Code	Materials (paper-based and electronic)
D1.1	DEV1 Program archives including SymCo surveys and feedback from mentors and participants
D1.2	DEV2 Program guidelines for new participants
D1.3	SymCo published newsletters and website information on DEV1 and DEV2 programs
D1.4	Statistics on DEV1 and DEV2 program participant characteristics and demographics collected by SymCo departments
D1.5	SymCo published information on company performance and results through annual reports and media releases
D1.6	Certified collective union agreement governing SymCo orchestral musician practices
D1.7	External, public domain information on the Australian performing arts industry and associated music education and music practice research

Case 2: KitchCo Observations, Interviews and Documents

Observations of group interactions:

Code	Case	Group activity	Date
G2.1	C2	Kitchen at work (chefs and apprentices) preparing for and delivering *à la carte* lunch service in restaurant	30/05/07
G2.2	C2	Kitchen at work (chefs and apprentices) preparing for pre-booked high-volume conference and delivering *à la carte* lunch service in restaurant	24/07/07

Individual or focus group interviews:

Code	Case	Part. Id	Participant Role and Pseudonym (if used)	Date
IN2.1	C2	P1	Manager, apprentice training company	20/04/07
IN2.2	C2	P2	Manager, apprentice training company	20/04/07
IN2.3	C2	P3	Manager, apprentice training company, chef Leon	20/04/07

Code	Case	Part. Id	Participant Role and Pseudonym (if used)	Date
IN2.4	C2	P4	Manager, host training company	30/05/07
IN2.5	C2	P5	Chef Jeremy	30/05/07
IN2.6	C2	P6	Apprentice chef Teresa	30/05/07
IN2.7	C2	P7	Apprentice chef Stewart	30/05/07
IN2.8	C2	P8	Apprentice chef	08/06/07
IN2.9	C2	P9	Chef Hans	26/06/07
IN2.10	C2	P10	Apprentice focus group Corey Jill Rosa Lydia	24/07/07
IN2.11	C2	P11	Chef	24/07/07
IN2.12	C2	P12	Apprentice Jack	25/07/07

Documents reviewed:

Code	Materials (paper-based and electronic)
D2.1	KitchCo internal marketing information related to apprentice training and examples of apprentice successes and activities
D2.2	Host training company websites
D2.3	External, public domain information on the Australian apprenticeship and hospitality group training industries. Relevant industry research statistics (tracked mostly by the National Centre for Vocational Education Research)

Case 3: CorrCo Observations, Interviews and Documents

Observations of group interactions:

Code	Case	Group activity	Date
G3.1	C3	Pre-community staff briefing	14/09/07

Code	Case	Group activity	Date
G3.2	C3	Community meeting (staff and offenders)	14/09/07
G3.3	C3	Weekly programs integration meeting (programs staff)	14/09/07

Individual or small group interviews:

Code	Case	Part. Id	Participant Role and Pseudonym (if used)	Date
IN3.1	C3	P1	Director/psychologist Amy	30/08/07
IN3.2	C3	P2	Probation & parole officer Tara	14/09/07
IN3.3	C3	P3	Custodial officer	14/09/07
IN3.4	C3	P4	Education officers Carol and Linda	14/09/07
IN3.5	C3	P5	Administrator Amy's supervisor	03/10/07
IN3.6	C3	P6	Custodial officer	09/10/07
IN3.7	C3	P7	Custodial officer Andrew	09/10/07
IN3.8	C3	P8	Psychologist/previously custodial officer	09/10/07

Documents reviewed:

Code	Materials (paper-based and electronic)
D3.1	CorrCo internal organisation charts and budgeted positions
D3.2	Internal interagency working team minutes on activities and progress of the rehabilitation program at CorrCo
D3.3	Draft of the case management guideline and procedures manual developed by the interprofessional care team
D3.4	Information on the mission, purpose and status of CorrCo on the parent company website
D3.5	External, public domain information on the Australian corrective services industry and relevant research on therapeutic jurisprudence, correctional reform and models of innovation in corrective services

Appendix 4: Transcription Conventions and Notes

I have chosen to present segments of transcribed speech from interviews using simplified transcription conventions that capture the key features of the participants' spoken language, yet also enable these segments to be as readable as possible. In keeping with my investigative focus to examine what it means to learn together when people talk in related ways, I highlight verbal cues, occurrences of overlaps in talk and other features of dialogue and polylogue but I do not engage in micro-analysis of spoken language such as in Conversation Analysis (Stubbe et al. 2003; ten Have 1999). These transcription conventions are simplified from Sacks, Schegloff and Jefferson (1974) and Drew et al. (2006) and summarised below.

Symbol/Example	Explanation
..	short pause of less than a second, multiple occurrences indicate slightly longer pauses
[---]	previous or subsequent omitted talk at the beginning of a turn
Yeees, Ohhh	tonal lengthening is indicated by repetition of letters
So in <u>our</u> way	underline to indicate participant stress on particular words
Oh no!	exclamation mark to signify emphatic comments
hello= =hello	latching (no hearable gap) between the end of one speaker's turn to the beginning of the next speaker's turn
[good evening] [hello]	simultaneous or overlapping talk. [marks the onset of overlap;] marks the end of overlapping sequence for each speaker
((laughs))	para-linguistic features and gestures
(inaudible) (undecipherable)	where one or more words is inaudible or undecipherable
(Program)	researcher's descriptions rather than transcriptions used to protect confidentiality of named program, unit or organisation

Further, any extracts, whether from transcribed speech or written texts (such as organisational memos, documents or email communications) are documented using the following additional conventions:

- Speaker identification is by pseudonym, work position or role. There is a new line for each new speaker. Researcher is designated as R except for interviews involving more than one researcher in which case, they are designated as R1 and R2.

- The insertion of … (three periods) indicates the omission of a word or part of a sentence.

- Occasionally a word is inserted as noted by the presence of square parentheses e.g. [then] to clarify or aid syntactic or semantic meaning.

- Speech extracts are numbered sequentially within each thesis chapter followed by its coded source, using the coding convention explained in Appendix 3, e.g.

- Extract3: IN1.3   means the third speech extract in the current chapter sourced from Case 1, interview with Participant 3.

- Extract5: G3.1   means the   fifth   extract   in   the   current   chapter sourced from Case 3, fieldnotes developed from Group Observation 1.

- Details of the data source (e.g. date and description) are explained in Appendix 3.

Appendix 5: List of Publications

During my doctoral candidature, I (co-)authored the following publications as part of my contributions as a doctoral student and researcher on the Informal Learning project mentioned in this thesis, as well as on a second workplace learning project funded by a separate Australian Research Council Discovery grant.

Journal Articles

Hager, P. & Johnsson, M.C. (2008). Working outside the comfort of competence in a corrections centre. *Australasian Journal of Correctional Staff Development*, 3(3). 11 pages.

Hager, P. & Johnsson, M.C. (2009). Learning to become a professional orchestral musician: Going beyond skill and technique. *Journal of Vocational Education and Training* 61(2): 103-118.

Hager, P. & Johnsson, M.C. (2009). Working outside the comfort of competence in a corrections centre: Toward collective competence. *Human Resource Development International* 12(5): 493-509.

Halliday, J.S. & Johnsson, M.C. A MacIntyrian perspective on organizational learning. *Management Learning*. Prepublished 13 November, 2009. DOI: 10.1177/1350507609347589.

Johnsson, M.C. & Hager, P. (2008). Navigating the wilderness of becoming professional. *Journal of Workplace Learning* 20(7/8): 526-536.

Refereed Conference Papers

Hager, P. & Johnsson, M.C. (2008). Working outside the comfort of competence in a corrections centre. *Proceedings of the 9th International Conference on Human Resource Development Research and Practice Across Europe*, 21-23 May, Lille Catholic University, Lille, France. ISBN 2-9516606-9-3. Winner of the Alan Moon Memorial Prize for best conference paper.

Hager, P. & Johnsson, M.C. (2009). Understanding learning at work: Judgement and the goods of practice. Paper presented to the 6th International Conference on Researching Work and Learning, 28 June-1 July, University of Roskilde, Denmark.

Johnsson, M.C. (2005). Internal versus external goods – A useful distinction for understanding productive workplace learning?. *Proceedings of the Australian Association for Research in Education Annual Conference: Creative Dissent: Constructive Solutions*, 27 November-1 December, Parramatta, Australia. ISSN 1334-9339.

Johnsson, M.C., Athanasou, J.A. & Hager, P. (2005). Judgement as a basis for informal workplace learning – preliminary research findings. *Proceedings of the 4th International Conference on Researching Work and Learning: Challenges for Integrating Work & Learning*, 11-14 December, University of Technology, Sydney, Australia. ISBN 1-920754-96-2.

Johnsson, M.C. & Boud, D. (2009). Learning work: Invitational qualities and conditions of emergence. Paper presented to the 5th International Conference on Lifelong Learning: Lifelong learning revisited: What next?, Centre for Research in Lifelong Learning (CRLL), 23-26 June, University of Stirling, Scotland.

Johnsson, M.C. & Hager, P. (2007). Navigating the wilderness of becoming professional. *Proceedings of the 5th International Conference on Researching Work and Learning: Researching work and learning: Rethinking the centre, rethinking the margins*, 2-5 December, The Universities of the Western Cape and Cape Town, Cape Town, South Africa. ISBN 978-1-86808-658-0. Received Runner-up Best Paper Award.

Price, O. & Johnsson, M.C. (2009). Through the practice looking glass: Workers as practitioners. Paper presented to the 23rd Annual Conference of the Australian and New Zealand Academy of Management, 2-4 December, Melbourne, Australia.

Price, O., Scheeres, H. & Johnsson, M.C. (2009). On practices that persist and perpetuate: Learning work in an Australian utility. Paper presented to the 6th International Conference on Researching Work and Learning, 28 June-1 July, University of Roskilde, Denmark.

Non-refereed Conference Papers

Hager, P., Johnsson, M.C. & Halliday, J.S. (2007). Examining context in collective learning: A cross-case analysis. *Proceedings of the 5th International Conference on Researching Work and Learning: Researching work and learning: Rethinking the centre, rethinking the margins*, 2-5 December, The Universities of the Western Cape and Cape Town, Cape Town, South Africa. ISBN 978-1-86808-658-0.

Johnsson, M.C. (2005). From teaching learning at work to teaching learning at university: Pedagogical perspectives on making the transition. Paper presented at the Postgraduate Student Symposium of the 4th International Conference on Researching Work and Learning: Challenges for Integrating Work & Learning, 11-14 December, University of Technology, Sydney.

Johnsson, M.C. (2009). Discovering tempo-rhythm in the common spaces of education and work: Unpacking the tempo of learning. Paper presented to the doctoRALnet student workshop at the 6th International Conference on Researching Work and Learning, 27 June, University of Roskilde, Denmark.

Research Reports

Johnsson, M.C., Athanasou, J.A. & Hager, P. J. (2005). Passion and partnership: A case study of the [ProjCo][14] partnership. Unpublished research report. Faculty of Education, University of Technology, Sydney.

Johnsson, M.C., Hager, P. J. & Athanasou, J.A. (2005). Collaboration and competition: A case study of the informal learning in a small business. Unpublished research report. Faculty of Education, University of Technology, Sydney.

Johnsson, M.C. & Hager, P. J. (2005). Profit over patient care: A case study of the Bundaberg Hospital[15] incident. Unpublished research report. Faculty of Education, University of Technology, Sydney.

Johnsson, M.C. & Hager, P. J. (2006). Shortcuts over safety: A case study of the Sea King[15] helicopter accident. Unpublished research report. Faculty of Education, University of Technology, Sydney.

Johnsson, M.C. & Hager, P. J. (2006). Unity and diversity: A case study of informal learning in a membership federation. Unpublished research report. Faculty of Education, University of Technology, Sydney.

Johnsson, M.C. & Hager, P. J. (2006). *Artistry and adaptability: Learning to become professional orchestral musicians: A case study of the [DEV1 and DEV2 Programs at SymCo][14]*. Faculty of Education, University of Technology, Sydney. ISBN 1 920953 00 0.

Johnsson, M.C. & Hager, P. J. (2007). Culinary service and servitude: A case study of the apprentice learning in commercial cookery. Unpublished research report. Faculty of Education, University of Technology, Sydney.

Johnsson, M.C. & Hager, P. J. (2007). Creativity and change in compulsory care: Factors influencing informal learning during organisational change at [CorrCo][14]. Unpublished research report. Faculty of Education, University of Technology, Sydney.

Scheeres, H., Johnsson, M.C. & Price, O. (2009). Wine excellence and enterprise. A case study of 'learning to become' together at [WineCo] [14]. Unpublished research report. Faculty of Arts and Social Sciences, University of Technology, Sydney.

Solomon, N., Rooney, D., Price, O. & Johnsson, M.C. (2008). 'Lights are on' learning. Integrated development practices [at SupplyCo][14]. Unpublished research report. Faculty of Arts and Social Sciences, University of Technology, Sydney.

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[14] Pseudonym used to protect the identity of the participating company.

[15] These research reports are based on research sources in the public domain such as Board of Inquiry documentation.

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