

University of New England

**The Emergence of Group Dynamics from
Contextualised Social Processes: A Complexity-
Oriented Grounded-Theory Approach**

A Thesis submitted by

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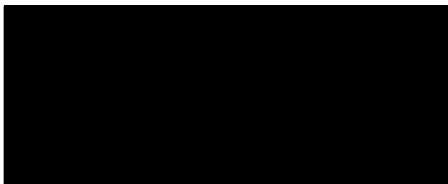
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CERTIFICATION OF THESIS

I certify that the ideas, experimental work, results, analyses, software and conclusions reported in this thesis are entirely my own effort, except where otherwise acknowledged. I also certify that the work is original and has not been previously submitted for any other award, except where otherwise acknowledged.

A solid black rectangular box redacting the signature of the candidate.

Signature of Candidate

18/09/17

Date

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Abstract

A formal group, within a University, is typically created to accomplish work goals through on-going coordination, combination, and integration of member resources. Group behaviour emerges from the confluence of individual and social forces and behaviours enacted to pursue desired goals. Interactions between group members in context create patterns of group processes and behaviours, and how these patterns change over time creates group dynamics. However, group dynamics do not simply reflect intra-group processes; they also reflect influences that arise from larger contexts within which the group is embedded. Group behaviour can, therefore, be argued to reflect emergent self-organisation, sensitivity to time and initial conditions, and causal ambiguity, properties associated with complex, dynamic and adaptive systems. Much of the research into group dynamics and behaviour (especially experimental social psychology research employing a positivist reductionist theoretical perspective) has tended not to look at groups through such a complexity lens. The research reported in this thesis was intended to push into this frontier. The fundamental question addressed in this thesis is: 'What occurs during group interactions associated with the emergence and maintenance of different types of group dynamics and how do those dynamics tend to unfold over time?'

I argue in this thesis that a deep and contextual understanding of the complexity of group dynamics can be achieved using an interpretivist/constructivist perspective coupled with a grounded theory approach employing methodologies that permit the deeper exploration of the meaning of individual as well as collective group behaviours. To achieve the depth of learning needed in this research, I focused on a single long-standing group, a committee that existed within a larger university. I gathered qualitative data using three distinct data gathering strategies: (1) participant observation of the group at its regular monthly meetings over a 12-month period; (2) semi-structured interviews with current and former individual group members; and (3) the review of historical documents (e.g., minutes of meetings, discussion papers) relevant to the group's initial genesis and evolution over the time period prior to this research as well as my own field notes amassed over the duration of the study. I employed MAXQDA 11 Plus to support my analyses of the qualitative data amassed using these three strategies and to aid the development of grounded theory that accounted for the group's contextual dynamics.

The results of this study revealed that when the focal group was addressing routine group tasks, systematic and consistent patterns of behaviour were observed. However, when the group was exposed to or perceived an internal or external shock, some interesting and unexpected emergent patterns of behaviour were

observed. These behaviours could be traced to the desire for a select few members to maintain the historically based group identity, function, and direction. This maintenance process was accomplished through the application of varying types of power to offset possible bifurcation. For example, one class of such behaviours focused on 'leadership hijacking', where control over the group's consideration of an issue was taken over by a person who was not the discussion leader but for whom that issue was 'hot' and perceived to be strongly threatening. Of the number of external shocks observed, the interplay between the university's and other larger contextual agendas and the group's agenda was visible and often vigorous. This type of shock caused confrontation and escalation behaviours to emerge with the goal, once again, to maintain the historically based group identity and agenda. The addition of data gathered from semi-structured interviews with current and former group members and the review of historical documents relevant to the group provided further evidence relevant to how members strived to maintain the historically based group agenda through the application of their unique brand of group dynamics. In some cases, depending upon the issue at hand, the maintenance of this historically based group agenda centred upon one group member and, in other cases, involved the creation of shorter- and longer-term coalitions. Thus, an understanding of the dynamics of interaction within this group was achieved through close examination of the various contexts within which the group was embedded as well as the contexts of the individual group members. The results support the need to employ a complex adaptive systems perspective when trying to unpack group dynamics as they play out in real time. This research also reinforces the value of adopting an interpretivist perspective to enhance the depth of this learning.

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CHAPTER 1

INTRODUCTION

“The unifying theme is unmistakable: the group to which an individual belongs is the ground for his perceptions, his feelings, and his actions.” (K. Lewin, 1948, p. 5)

1.1. Introduction

In this chapter, I will provide the reader with an understanding of my research purpose, based on 20 years of work experience in a group environment where group functions evolved over time. These groups were self-managed and comprised members that represented four to five different professional disciplines. The group environment was highly contextualised, where interpersonal, intrapersonal, organisational, and societal interactions occurred daily. I had worked with several of these self-managed groups; each existed in a different contextual environment where the group interplay was unique. From my perspective, these differences in interplay existed due to the presence and combination of differing group dynamics, such as “interdependent collaboration, open communication and shared decision-making” (Xyrichis & Ream, 2008).

The recognition of these differences led me to consider the following questions: ‘What is the role of a group’s contextual environment in its interplay?’; ‘Why do groups that exist in the same contextual environment experience different group dynamics?’; ‘What is the effect of time on a group’s dynamics?’; and ‘What role does a group’s membership have on a group’s dynamics?’ The consideration of these questions led me to pose additional questions: ‘Are group dynamics a direct product of its interplay with its multiple embedded contexts¹?’ and ‘What role does a member’s personal and professional history play during group interaction?’ These questions stimulated my research journey. For this study, I used the following

¹ An ‘embedded context’ is “the setting physical, geographic, temporal, historical cultural, aesthetic-within which action takes place”(Lawrence-Lightfoot & Davis, 1997, p. 41) and exists both internally and externally with respect to a group’s boundary (Gladstein, 1984).

definition of group dynamics: the “influential actions, processes and changes that occur within and between groups over time” (Forsyth, 2010, p. 2).

1.2. The Purpose of this Research

The majority of group research to date has been guided by an objectivist epistemology and the use of a positivist theoretical perspective (Cartwright & Zander, 1968b; Forsyth & Burnette, 2005; Kerr & Tindale, 2004; McGrath, 1984; McGrath, Arrow, & Berdahl, 2000; Tajfel, 1982; Wittenbaum & Moreland, 2008). Kerr and Tindale (2004) hinted at the limitations of the positivist paradigm to group research by stating that “there is general agreement that groups are certainly more complex than most of our theories and methods would suggest” (p. 642). They pushed this argument even further by suggesting that what limits insights when researching group dynamics is the multiple embedded contexts where they occur. They ask the question “how can this complexity best be analysed and understood?” (Kerr & Tindale, 2004, p. 642).

Kerr and Tindale (2004) stated that group dynamics are the product of a very complex environment and not formed nor do they occur in isolation (p. 642). Extending this logic with the help of complexity leads to the idea that group dynamics emerge out of the multiple interactions that occur within and between a group and its multiple embedded contexts. In the literature, those contexts exist within three layers: intragroup, extra-group and contextual layers, where the interplay both between and within a group and these layers over time is known as a group’s contextualised environment (Arrow, McGrath, & Berdahl, 2000; Hogg & Tindale, 2008).

The interplay between members constitutes the intragroup contexts layer, where their personal abilities, expectations, needs, preferences, and perspectives guide their interplay. The interplay between a group or subsets of members and other contexts in which the group is embedded comprises the extra-group context layer. The contextual contexts layer will have interactions between a group and the larger contextual influences exerting pressures on the group. Those contextual pressures come from contexts the group may be embedded within (e.g., university, and even

greater, the tertiary² education sector), and represents their naturalistic environment. These pressures also originate from contexts that the group itself is not embedded within, but some group members have an active relationship (e.g., a professional society or association, a research network).

I argue that to understand group dynamics more fully, the multiple interactions that occur within and between a group and its contextualised environment must be the focus of study. Thus, group-specific interactive observable behaviours will be revealed as emergent and self-organising dynamics, influenced by time. The presence of interplay between and within a group's contextualised environment presents a group's dynamics as a product of social construction that occurs through primary and secondary socialisation (P. Berger & Luckmann, 1966). Primary socialisation is the basic social structure that each individual is born into and learns to interpret and adapt to their world (P. Berger & Luckmann, 1966, p. 151). Primary socialisation occurs at two levels: the individual self and the cultural self. Secondary socialisation focuses on the acquisition of role-specific knowledge deemed necessary for an individual to complete tasks (P. Berger & Luckmann, 1966, p. 158).

These interactions are not static but change dynamically over time, creating phenomena that cannot be easily understood through an objectivist epistemology and a positivist theoretical perspective, where a reductionist logic is applied to contextually simplify and isolate specific hypothesised constructs and their relationships (Crotty, 2010). Considering the complex and dynamic interactions that occur over time to form a group's dynamics, the purpose of my research is to offer an in-depth understanding of those dynamic and complex interactions that occur within and between a group and its contextualised environment, over time. To gain this understanding required implementation of a constructionist epistemology that examined the ongoing social construction of group dynamics from multiple perspectives (Crotty, 2010).

My epistemology informed me to interpret the socially constructed data from multiple sources through the interpretivist theoretical perspective, which places the

² Tertiary education, higher education offered by universities (Government of Australia, 2016)

researcher close to their data. The use of this theoretical perspective accounts for my role as a participant observer and therefore a part of the group's contextual environment. Interpreting data from multiple sources while a researcher maintains a close position to those sources requires the use of a grounded theory methodology that can accommodate those demands. The methodology of grounded theory (GT) allowed me, through inductive theory-building, to provide a theoretical understanding of why specific types of group dynamics emerge (Crotty, 2010). I employed a multimethod research data gathering strategy, collecting data from multiple sources using participant observation, field notes, historical document analysis and interviews to enhance the quality of my research regarding transparency, authenticity and sufficiency (Cooksey, 2008).

During the participant observations session, I digitally recorded and observed 12-monthly group meetings where I accessed documents and meeting minutes that were presented at the monthly meeting. During these observation sessions, I witnessed the group interacting amongst its constituent members as well as with aspects of its contextualised environment in numerous ways, revealing an evolving range of group behaviours and dynamics. As I observed the meetings, I maintained a detailed set of field notes that captured my notations of incidents and interpretations and recorded my debriefing after each observation session. I accessed the group's historical documents, which included meeting minutes, emails, letters, and reports. The historical data created a contextual positioning of the group by recording the creation and developmental process of the group. Finally, I completed semi-structured interviews with members, ex-members, and staff external to the group. The individual interviews provided insights into individual historical and social interaction perspectives relevant to their membership in the group.

1.3. The Significance of this Research

The aim of this research is to present an understanding of group dynamics that is both viable and useful insight into group behaviour in all its complexity. The methodological perspectives typically used to study group behaviour tend to overly simplify and constrain what was learned, often ignoring, assuming away, or

controlling for the real complexities, including evolution over time, that underpinned the behavioural dynamics in the first place. Typically, the study of group behaviour occurs in artificially induced and controlled contextualised environment, ignoring how behaviour patterns map against the passage of time (McGrath et al., 2000). A group that is functioning within an artificial environment experiences contrived interaction, with control elements that constrain behavioural possibility. Such interactions are far different from those experienced by a group functioning in a naturalistic group in situ, interacting with its contextualised environment (Arrow et al., 2000).

When a group is studied within its naturalistic group in situ, a researcher is brought closer to observing authentic social interactions between and within a group and its contextualised environment, yielding insights into how and what group dynamics are created and developed over time. The paradigm shift required is to view group behaviour as the product of a very complex set of interactions with its contextualised environment over time, where the outcome of those interactions lacks predictability. Time is a key dimension of group experience that can no longer be ignored: behavioural dynamics, by their very definition, implicate change and evolution over time. Further, the transportability of research outcomes will be very limited due to the number of interactions with deferring embedded contexts that are unique to every group.

Echoing the thoughts of McGrath et al. (2000), the methodological challenge I was presented with was to continue to add to the development of a comprehensive theoretical model that provided an adaptable “approach to empirical research informed by theory and by existing empirical findings that connect theory and empirical research” over time (McGrath et al., 2000, p. 101). The generation of a grounded theory on the emergence of group dynamics over time fulfils that need. I have positioned my research within the extant literature as adding to the study of group behaviour as displayed by a naturalistic group.

My study of group behaviour occurs through the lens of Cooksey’s (2001) contextualised spheres of dynamic influence and the present understanding of group behaviour through the use of complexity in particular complex adaptive

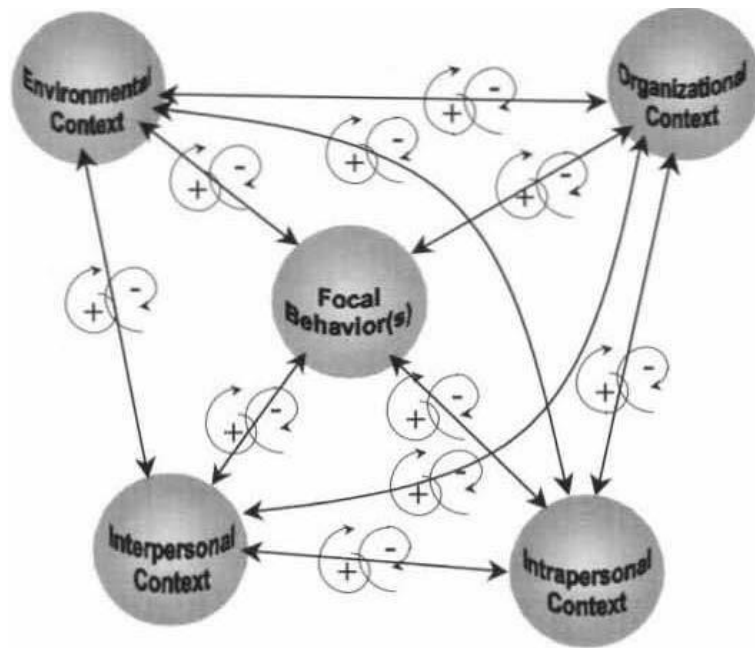
systems (Arrow et al., 2000). Complexity is a “general understanding of complex systems that focuses on nonlinear relationships, systemic interaction, boundary problems, emergence and adaptation”(Cilliers, 2011). Complexity stands in opposition to reductionism, where an understanding of the relationships between the whole and the parts of a system differ. The understanding of either the whole or the parts is not sufficient; what is sought is an understanding of both and their intertwined relationships (Morin, 2007).

1.4. Contextual Spheres of Dynamic Influence

In this section, I argue that a group’s interactions both within and across its contextualised environment occur continuously and simultaneously over time: a state that lacks an identifiable form or parameter to facilitate the study of those interactions. The application of complexity alone will not facilitate my understanding of a group’s behaviours. What was required was a method of organising a group’s interactions both within and across its contextualised environment into individualised contexts. Cooksey (2001) argued that contexts within organisational systems are multi-dimensional entities comprising multiple levels that are understood by applying a “multi-dimensional diversity” research perspective (p. 77). Cooksey's (2001) contextual spheres of dynamic influence (CSDI) are comprised of five spheres: environmental, organisational, interpersonal, intrapersonal, and focal behaviours (p. 88) (see Figure 1.1).

The CSDI not only accounts for multi-dimensional diversity, but it also considers the web of interactive linkages that were "direct, indirect, recursive, and non-recursive" while under the influence of positive and negative feedback loops (Cooksey, 2001, p. 88). The CSDI provided a data perspective that allowed me to peel back the multiple layers that comprised group dynamics to generate a meaningful understanding of why and how those dynamics occurred. The five spheres of influence allowed me to unpack the contextual complexity that created group dynamics down to the micro levels, where "very specific contextual features can be identified", enabling me to examine those contextual features (Cooksey, 2001, p. 88). The position of any one sphere found within a set position in time is dynamically changing in response to the positive (destabilising), and negative (stabilising), feedback loops.

Figure 1.1. Contextual Spheres of Dynamic Influence



Cooksey (2001, p. 88)

The balance of positive and negative feedback loops creates differing levels of behavioural variability, where heightened negative feedback loops reduce behaviour variability, seeking a state of known equilibrium versus the effect of positive feedback loops that exacerbates behaviour variability moving behaviour away from a known equilibrium state (Cooksey, 2001, p. 90). Behaviours can be seen to emerge as an adaptive consequence of the relative balancing between feedback loops, affording me insights into the complexity of the dynamics that emerge from group interactions.

1.5. Quality Criteria

My research conveys a convincing story that can withstand an elevated level of scrutiny by meeting quality criteria that were paradigm specific for interpretivism. The interpretivist paradigm allowed me to explore relationships found within and between a group and its contextualised environment by gaining an understanding of the meaning and evolution of those relationships. The understanding gained occurred through the creation of a substantive grounded theory that emerged from the data (Charmaz, 2010; Glaser, 2004)—theory that was co-constructed, where my role was to collect and interpret behavioural data based on my personal and professional history. I unfold an interpretive story that reflects the transparent

positioning of myself in relation to the focal group—a level of transparency that provided a high-level of contextual sensitivity and reflected the positioning of the group and other data sources (Cooksey & McDonald, 2011, pp. 535-537) (see Table 1.1).

Table 1.1. Eleven methods for Enhancing Research Rigour

Standards of rigour	Suggested methods of research practice
Authenticity = the trustworthiness and faithfulness associated with how the voices and views of participants are captured, represented & demonstrated, and used to inform the development of the grounded theory	1. Let participants guide the inquiry process
	2. Check the theoretical construction generated against participants' meanings of the phenomenon
	3. Use participants' actual words in the theory
	4. Articulate the researcher's personal views and insights about the phenomenon explored by means of: <ol style="list-style-type: none"> a. Posting comment interview sheets used as a tool b. Field notes
	5. Monitor how the literature was used
	6. Demonstrate that substantive theory(s) are grounded in the data
Transparency = openness about researcher and participant positioning, all choices and processes employed in the sampling, data gathering and analysis stages of the research	1. Specify how and why participants in the study were selected
	2. Specify all the data collection techniques that were applied
	3. Have all collected data open for review
	4. Specify all analysis techniques that were applied
	5. Keep all analyses as close to the data as possible so that interpretations can be clearly connected to the data
Sufficiency = the extent to which all relevant voices and perspectives have been tapped into in data gathering, analysis and interpretation/ theory-building activities	1. Demonstrate that data saturation was reached for my conceptual categories
	2. Demonstrate that data saturation was reached for my theoretical concepts
	3. Demonstrate that appropriate voices and perspectives had been sought out and heard throughout the research

Adapted from Cooksey and McDonald (2011, p. 189)

In keeping with my constructionist epistemology and interpretive theoretical perspective, I focused on meeting the expectations of three of Cooksey and McDonald's (2011, p. 213) paradigm specific quality criteria: authenticity, transparency, and sufficiency to enhance the rigour of my research. The three

quality criteria standards of rigour that I have applied are demonstrated in isolation and conjunction with one another. Authenticity was addressed by answering the question, "Are the interpretations generated by the researchers an accurate depiction of the perspectives of those participating in the research?" (Cooksey & McDonald, 2011, p. 189).

I demonstrated transparency by answering the question, "Could another researcher generate similar categories/meanings that facilitate the elaboration of the account or interpretation?" (Cooksey & McDonald, 2011, p. 189). Lastly, sufficiency was revealed by answering the question, "Have enough people, instances, occasions, perspectives, and documents been sampled to allow presentation of a sufficiently complete and convincing account?" (Cooksey & McDonald, 2011, p. 189).

Authenticity, transparency, and sufficiency are revealed through the detailed recording of field notes and the development of coding, central categories, and central concepts that emerged from the data collected from four different sources.

Authenticity was supported through my digital recording of members' words as close to verbatim as possible in transcripts, keeping analyses and interpretations close to the data, and using varying sources of data to triangulate meanings using multi-methods research (Brewer & Hunter, 2006). The use of multiple methods research was the incorporation of four data sources: a review of historical documents, digitally recording 12-monthly meetings, field notes, and the completion of one-on-one, loosely structured interviews.

My use of one-on-one, loosely structured interviews placed the interviewees in the leadership role of guiding the direction of the discussion, thus augmenting the authenticity of my data. The field notes provided documentation of incidents and events that occurred during my participant observation and interview sessions. My interpretation of my data was a product of co-construction between my data sources and myself, where I verified my interpretations through the constant comparison of my interpretations against my data. Constant comparison was used to gauge the attainment of saturation or sufficiency as my research progressed through each level of the GT methodology. If I was unable to verify my interpretations, I returned to my data, seeking clarification that would either

support or deny my interpretation, adding another level of authenticity to my research.

Within the co-construction process, the effect of my researcher preconceptions on my interpretation of group interactions was an ongoing concern. The concern was that my interpretations would be based more on what I believed occurred as opposed to what did occur, thereby having a negative effect on my research authenticity and transparency. To offset the effects of my preconceptions, I practised reflexivity by recording all identified incidents where my preconceptions drove my interpretations versus being reflective of what my data represented. Although a level of subjectivity and judgement was present in my interpretations, data accuracy was essential and was enhanced through my use of triangulation by employing a multi-methods research method (Brewer & Hunter, 2006).

Authenticity and transparency of the data collection process were enhanced through digital recording of all group meetings and interviews. With this data source, I could return to my data and confirm what was said and by whom, bringing me closer to my data and improving my interpretations of that data. Further, upon completion of each observation and interview, I reflected on both episodes, recapping what occurred, and focusing on points that I would like further clarification on by returning to my data. During this process, I also noted significant nonverbal responses that I observed and recorded to flesh out my data fully and make it as descriptive as possible.

Enriching the transparency of the research, I detailed how and why the group was selected, including the position they held within an organisational context.

Positioning the group allowed me to apply a case study method, to logically examine interactions in a group that existed within a larger context. Through the application of transparency, I provided a detailed description of how each of my four data sources was created, utilised, and maintained for future review. Finally, my detailed description of my data analysis techniques, with the application of MAXQDA 11 Plus (MAXQDA 11 Plus, 2015), and subsequent creation of central categories and central concepts leading to substantive theory development, augments the level of transparency my study offers.

1.6. Reflexivity

Bryant and Charmaz (2010) argued that research employing a constructionist GT method through the interpretivist theoretical perspective requires reflexivity. Reflexivity involves the researcher explicitly acknowledging “his/her prior knowledge and tacit knowledge, to bring such knowledge into the open, to discuss how it has affected the theory development” (Cutcliffe, 2000, p. 1479). To address reflexivity required me to maintain a close relationship and clear acknowledgement of my assumptions, noting when they were influencing the story that was unfolding from the data. The acknowledgement of my close relationship required me to examine my data interpretations from multiple angles to ensure that my interpretations were reflective of the data and of my assumptions of what the data represented.

The interpretive theoretical perspective that I applied views knowledge as a product of social and cultural interaction, where the researcher assumes an active role that influences the research process and interpretations. The researcher’s role is multifaceted and evolves over time, where the researcher incorporates their preconceptions into the co-constructed interpretation of a study’s data. The incorporation of a researcher’s preconceptions can occur either in an implicit or explicit manner. If a researcher reveals their preconceptions in a clear and concise manner, they will become known and available for further review of their role in in the co-constructed interpretations. Full knowledge of their role enhances the level of authenticity that a piece of research can convey.

If a researcher’s preconceptions are applied implicitly or covertly, then the role they play in the interpretive process remains unknown, creating a barrier between a researcher and their data. The creation of such a barrier will decrease the level of authenticity a piece of research can present. Further, if a researcher’s preconceptions are implicitly applied, they will remain unknown and therefore decrease a study’s level of transparency. The decreased level of transparency does not imply that the role and effect of the researcher’s perspective can be predetermined, but through co-construction and the intelligent use of the researcher’s personal interpretative framework, new explicit understandings can be

developed (Levy, 2003). Reflexivity provided me with the tool to actively acknowledge and record instances where my assumptions were either implicit or explicit in nature. The acknowledgement provided me with an understanding of the role my preconceptions played in the co-constructed interpretive process and provided my research with an increased level of transparency and authenticity.

1.7. Research Journey

My journey completing this study was not a simple one where I worked within a theoretical perspective that I had prior experience with. My journey as a researcher had a few more bends in the road, cliffs to climb and rivers to cross to reach the point of completing a piece of qualitative interpretive research. When I entered my doctoral program, my research background was firmly anchored in the positivist (quantitative data) research paradigm, and I viewed qualitative research as a 'grey area' where every piece of information can be converted into data and form the basis for a study. At this point, my research journey led me from what I had known into the unknown or 'grey area' of qualitative research.

That journey into the application of a qualitative methodology began with discussions with my doctoral advisor on the selection of research topic. I was given a simple question to answer: 'What behaviours does a group engage in to facilitate goal attainment?' the answer was group dynamics. A group's dynamics are socially constructed and displayed by a group's behaviours. My immediate thought was about what quantitative methodology would best provide me with a method of identifying group behaviour, i.e. survey method.

However, after further discussions with my doctoral supervisor, it became apparent that a constructionist epistemology, and an interpretivist theoretical perspective, using a grounded theory method was the best means to allow me to build an understanding of a group's dynamics. I had minimal knowledge of this theoretical perspective and felt like I was stepping off a high diving board blindfolded and hoping there was water in the pool. So off I stepped, landing in a research environment that was rich and thick with an interpretive paradigm that allowed me to address the questions regarding group dynamics that I have held for some time.

1.8. Research Problem and Questions

This thesis intends to increase the level of understanding of the emergence of dynamics over time as demonstrated through the behaviours of a naturalistic group in situ. In other words, the central research problem I am investigating is 'What is the role of the interplay between a group and its various levels of dynamic influence in the self-organisation and emergence of group behaviours over time?' Stating the research problem in this way leads to the following more specific research questions:

1. What is the role of the group's initial and future contextualised environment in the development of a group's dynamics?
2. What adaptations in a group's dynamics are made over time and in response to changing contextual events?

1.9. Outline of the Thesis

In Chapter 2, I will provide a critical review of the extant literature on the study of group behaviour from the perspectives of social psychology, sociology, and complexity. I will argue which of these three perspectives provide differing constraints towards addressing my research questions. I will outline how each of these three perspectives represents either a positivist or interpretivist/constructivist paradigm. Next, I will present five research assumptions that guided my approach to addressing my research questions, providing an in-depth understanding of a group's emerging dynamics. Lastly, I will present my main research problem and my two research questions that drive this study.

In Chapter 3, I will provide my researcher positioning and describe, explain, and justify the methodology and methods used in this study. I chose to use Charmaz's (2006) constructionist grounded theory method (CGT), which was informed by a constructionist epistemology that offered an understanding of the self-organisation and emergence of group dynamics over time. The focal group for this study was embedded within an existing school³ context that was a part of a larger university,

³ Schools make up part of the university's organisational structure. Schools fall within the same categorisation as faculties (Curtin University, 2016b).

where that university was a part of a greater societal context that facilitated the use of a case-study approach. The numerous interactions that occurred within and between the group and its contextualised environment were organised through the lens of Cooksey's (2001) CSDI which allowed me to organise my data initially into four groupings: environmental, organisational, interpersonal, and intrapersonal.

For this study, I assumed the role of a passive participant observer, which allowed me to explore the social processes displayed by a group (Becker, 1958). Loosely-structured, one-on-one interviews were used to gather data from members and non-group members. Interviews with non-group members included individuals who were past members and individual(s) whose role influenced the group or where the group influenced their role. I used field notes to assist with recording my observations during group interactions, interviews, and maintaining a written record of the role played by my preconceptions during my data interpretations. The interpretive framework for my data analysis uses an inductive method that was supported by the Computer Assisted Qualitative Data Analysis (CAQDAS) software MAXQDA 11 Plus (MAXQDA 11 Plus, 2015).

In Chapter 4, I will present a theoretical analysis of the data and emergent grounded theories spawned from the data gathered over time. I will reveal that group dynamics are not only displayed by individual behaviours but by the behaviours demonstrated when members interact both within and across a group's contextualised environment, supporting the idea that a group's behaviours are greater than just the sum of its individual member's behaviours, where a group's dynamics are under the influence of either the attainment of group goals, meeting member needs or both. Further, I will present findings that support the role of changes in a group's contextual circumstances that influence dynamic adaptations. I will inform the reader that a group's dynamics are guided by their historical context and the perception held by the members of their group identity and behavioural equilibrium state.

In Chapter 5, I will compare my emergent theories with the existing research and the literature reviewed in Chapter 2, providing integration and interpretation of my conclusions about the research problem and the two related research questions. I

argue that the introduction of new literature based on the emergent theories extended beyond the scope of the extant literature. Further, I discuss the implications and limitations of the GT methodology and my emergent theory from an applied perspective. I finish this chapter by exploring future directions for this research.

1.10. Conclusion

The purpose of this chapter was to lay the foundation for my study by outlining its purpose, significance, and paradigm. I argued that the study of authentic group behaviour can only occur when a naturalistic group is studied in situ, free from the positivist paradigm. I presented group dynamics as the complex product of the interplay between and within a group and its embedded contexts, over time, where the complexity of those dynamics is best unfolded through gathering data from multiple sources, organising that data through the lens of CSDI, and applying GT to produce grounded theories to explain the emergence of those dynamics. The reader was informed that the use of an interpretive theoretical perspective requires the application of reflectivity to maintain data collection and interpretation transparency and authenticity. Further, I supported the rigour of this study by stating how I applied sufficiency by accessing multiple data sources until saturation was reached. The research journey that I took to complete this study offered the reader insight into my research path—a path that took me on a research journey into the unknown. In the next chapter, I outline a critical review of the extant literature to support my argument for the GT methodology selected to answer my research problem and related research questions.

CHAPTER 2

CRITICAL REVIEW OF LITERATURE

“Nonlinear Science(s) . . . the aim is to provide the concepts and the techniques necessary for a unified description of the particular, yet quite large, class of phenomena whereby simple deterministic systems give rise to complex behaviours with the appearance of unexpected spatial structures or evolutionary events.” (Nicolis, 1995, p. xiii)

2.1. Introduction

In the previous chapter, I provided the reader with an introduction to my research. In this chapter, I will provide a definition of a group within an organisational context, followed by a review of the sociological, social psychological, and complexity perspectives towards group research. My review will highlight the research focus and constraints of each of these research perspectives. I will then expand my discussion on complexity by informing the reader on complex adaptive systems (CAS) and how the constructs of hierarchy, self-organisation, emergence, intrinsic dynamics, and bifurcations apply to the understanding of group behaviour.

I will argue that a group’s function, like CAS, is composed of three hierarchical dynamical layers: intragroup, extra-group, and contextual, where they are in a state of continuous interplay both within and across its embedded contexts, over time. Over the course of that interplay, recursive interactions lead to the self-organisation and emergence of behavioural and cognitive patterns that are experienced as dynamics. I will argue that to gain insight into a group’s dynamics requires an interpretative theoretical perspective to explain group behaviour that is displayed by a naturalistic group in situ—a theoretical perspective that is best supported using a GT methodology to address my research problem and research questions.

2.2. Definition of a Group

Despite the different perspectives on group behaviour research taken by various social and behavioural sciences, a traditional recurrent definition of groups in organisations was applied. The traditional definition was common before the 1990s, where much of the research was on organisational groups (Hackman, 2012;

McGrath et al., 2000). A group was defined as a tightly held social unit with stable and long-term membership (Hackman, 2012). Social interaction occurred mainly through face-to-face communication while functioning as a simple system that generated either a physical product, service or decision as an outcome (McGrath et al., 2000). Senior management created groups that operated in isolation free from the need to adapt to changes that could occur from within its embedded context over time (Hackman, 2012; McGrath et al., 2000). Group research employed the same isolationist approach as studying groups from within the confines of a laboratory, operating under the assumption that the structure of all groups was the same and interchangeable (McGrath et al., 2000).

A current view of groups in organisations sees them as social entities that can have short lifespans, with an unstable membership (Wageman, Nunes, Burruss, & Hackman, 2008) and geographically dispersed, where technical support is required to facilitate social interaction (O'Leary & Cummings, 2007). Groups of today are faced with solving complex and far-reaching issues that are laden with uncertainty, such as organisational leadership issues (Berg, 2005), involvement in negotiations (Behfar, Friedman, & Brett, 2008), and managing change initiatives (Hackman & Edmondson, 2008). Members of a group can come from different organisations, resulting in highly contextualised group membership (Dess, Rasheed, McLaughlin, & Priem, 1995). Groups are under the influence of multiple temporal processes that continuously and simultaneously influence a group's embedded contexts and their interplay with those embedded contexts (Baron, Polemnia, & Beek, 1994; McGrath et al., 2000; Vallacher et al., 2013).

Groups in organisations exist within a complex set of multiple overlapping embedded contexts that are influenced by time. The contextualisation of groups is an organisational behaviour construct that examines how the "diversifying nature of work and work settings can substantially alter the underlying causal dynamics of the worker-organisational relations" (Rousseau & Fried, 2001, p. 1). Weick (1996) outlined the interplay between individuals and their embedded contexts as influenced by the strength or weakness of the circumstances surrounding these interactions.

For my research, I adopted the following definition of a group in a university context: a group is a bounded, structured social entity populated with members that have a shared purpose, which is met through interdependent member interplay with a group's embedded context (Wageman et al., 2008). A group's interplay is guided by formal and informal group roles and normative behaviour that is influenced by time. Defining a group as a social entity raises the issue of how to unfold a meaningful story of group behaviour that is the product of multiple interactions across time. Methods to gaining an understanding of group behaviour can come from multiple disciplines and theoretical perspectives. The decision on which perspective to apply is guided by the desired understanding of groups that a researcher wants to achieve and convey. I will discuss three perspectives used to gain an understanding of group behaviour: sociology, social psychology, and complexity, reviewing their research focus and constraints.

Contextualised Environment

A group's contextualised environment is composed of multiple social elements that it interacts with on a continuous basis. These social elements have an effect on a group's behaviour and are represented by a group's environmental context, organisational context, interpersonal context, and intrapersonal context (Cooksey, 2001, p. 89). As change occurs in one or more elements of a group's contextualised environment, the group is presented with pressure to adapt its behaviour to meet the demands of the change. These differing contextualised environments are populated with contextualised elements with which a group interacts and are represented by a group's environment, a group's university, how members interact, and how a group interacts with other social entities. As these elements change over time, the cumulative effect of those changes can result in the need for the group to adapt its behaviour. The aggregate effect of changes that a group incurs is the growing accumulation of numerous changes a group incurs.

2.3. Group Research

Research into small group behaviour has spanned 100 years, occurring through the lens of sociology, social psychology, and complexity (Levine & Moreland, 1990; McGrath, 1997; Moreland, Hogg, & Hains, 1994; Sanna & Parks, 1997). A review of

the relevant literature revealed that different social and behavioural sciences each were concerned with a specific aspect of group behaviour (Allport, 1920; Baron et al., 1994; Hackman, 1990c; Hare, 1976; Morgeson & Hofmann, 1999; G. Simmel, 1902; Triplett, 1898). In some cases, these research perspectives overlapped, providing unique insights.

Sociology views research on small group behaviour as the effect of a group's interplay with its contextual environment, i.e. organisations, communities, and societies. Sociology views these larger contextual and extra-group relationships as the driver of group behaviour. The understanding of small group behaviour through the social psychology perspective focuses on the effect of the individual members on group behaviour, specifically on what the effect on group behaviour from the interplay between members is, revealing the constraining focus on intragroup relationships. Complexity research into group behaviour tends to convey an understanding that focuses on the interplay between the members, groups, communities, and society, providing insight into how different entities relate to one another over time.

Sociology

Sociology research tends to focus on two levels of analysis: how a community affects a group's behaviour and how society affects that community's behaviour (Durkheim, 1895; Goffman, 1967; Marx & Engels, 1951; Parsons, 1951; Weber, 1920). During the 1920s, the sociologist Durkheim (1895) viewed a change in society (increased suicide rates) as the result of an external force (industrial revolution). His view was echoed in the definition of sociology given by Bartlett, Ginsberg, Lindgren, and Thouless (1939) being the study of society and the effect of its multiple human interactions and relationships. Sociological research into group behaviour typically focuses on the relationships between groups and the behavioural changes caused by those relationships. The effect of the individual member on a group's behaviour is not considered and is a constraint of this type research. The base unit of analysis is the group and its influences on the group's larger contextual relationships (i.e. societal/cultural). A group's dynamical behaviour display over time played a lesser role in theorising.

Currently, there is a debate on what theoretical perspective of social theory should be assumed with the study of small groups. The debate is based on a “hyperdifferentiation” (J. Turner, 2006b, p. 1) of theories or, as Collins (1998) states, “the law of small numbers”, where multiple theoretical perspectives are competing for limited research attention (Collins, 1998, p. 30). One would expect the strongest theoretical perspectives to rise to the top and the weaker perspectives to fall to the wayside, but this is not so in sociology. The space occupied by each theoretical perspective has an accompanying base of proponents that strive to maintain the place held by their choice (S. Turner & Turner, 1990). Theoretical perspectives are not required to justify their relevance; they merely must co-exist, leaving sociological theory to no longer be required to “be tested against empirical facts” (J. Turner, 2006b, p. 2).

The debate has been grounded on the issue of micro-, meso-, and macro-level phenomena within sociological theory and the study of small groups (Harrington & Fine, 2006; Stolte, Alan, & Cook, 2001). On the micro-level side (agency theory), questions are aimed at explaining theories of action, behaviour, and interpersonal processes (J. Turner, 2006b). At the meso-level, which exists between the micro and the macro levels, is the intermediate level between macro-level forces (economy) and micro-level forces (individual interactions) J. Turner (2006b). The macro-level side (structure theory) explores the theories of population level and societal-level forces (J. Turner, 2006b). These issues have persisted over the decades without resolution (Emirbayer & Mische, 1999; Ritzer & Gindoff, 1994) and raised the question ‘What role does sociological theory play in understanding small groups?’

One theoretical perspective to the study of small groups is a combination of the micro- and macro-levels (Collins, 1981b, 2014), creating an analytical method that applies micro-level analysis to provide an understanding of the “core macro-structural issues” of interest (Harrington & Fine, 2006, p. 5) through the use of deductive reductionism, where the actions noted at the micro-level are interpreted and inform the macro-level laws of social behaviour and culture (Blau, 1994). The microsociological perspective creates a recursive relationship between micro-level

and macro-level phenomena, where one mutually influences and substantiates the existence of the other.

Within this relationship, social processes that occur at the micro-level are grounded in the normative group interplay, which is defined by at the micro-level actions as group roles, routines, and traditions (Fine & Kleinman, 1979). A theoretical perspective is formed that counters the limited perspective of structure theory, which focuses on the role of the individual and the neglect of agency theory towards social structure (Harrington & Fine, 2006). As the interplay between a group and its embedded contexts occurs, a theory can be created to explain specific group behaviour (i.e. variation, conflict and change) (Harrington & Fine, 2006). The examination of a small group's social processes provides the basis for a group-specific theory of action that includes both agency and structure. The theory of action permits the creation of a theoretical perspective that addresses group-specific issues of conflict and change (Harrington & Fine, 2006).

The acceptance of a micro/macro level method to the study of small groups has not been widely accepted, with numerous authors proposing either a micro-level model (P. Berger & Luckmann, 1966; Coleman, 1990; Collins, 1981a, 1981b) or a macro-level model (Blau, 1977a, 1977b, 1994; Mayhew, 1980, 1981). Researchers that support the micro-level model state that the micro-level processes that are present explain new realities. These theorists apply reductionism to theories based on micro-level processes where macro-level theory development is not deemed necessary (Coleman, 1990; Collins, 1975; Hechter, 1987).

Those who profess the macro-level model argue that there are new realities that require individual explanation (J. Turner, 2000). These new realities restrain "action and interaction at the micro-level, they do not determine in any precise manner micro processes" (J. Turner, 2006b, p. 4). The research perspective of sociology towards group behaviour in this example is attempting to include the influences of members and a group's contextualised environment to explain group behaviour. However, traditional theoretical perspectives for sociology for the study of group behaviour are constrained to the level of a group and not to the level of its members.

Social Psychology

Social psychology had a long tradition of research on large-scale groups and the collective self (Le Bon, 1896; Mead, 1934; Wundt, 1916). The interest in this type of research faded with the increased use of a behaviourist paradigm to group research (Allport, 1924). However, the application of social identity theory did go against this research trend (Tajfel, Billig, Bundy, & Flament, 1971) and the development of an emphasis on societal and intergroup aspects of social behaviour occurred. Social identity theory changed, and it was integrated into various aspects of the social categorisation process actively studied today (Abrams & Hogg, 1988; Hogg, 2000; Tajfel et al., 1971). The integration of social identity theory was an attempt to describe intergroup behaviour, the collective self, and the social self (Hogg, 2001b). What this integration did spur is renewed interest in the study of groups from the social psychology perspective.

Social psychology initially provided an understanding of how member interplay affects the behaviour of a group (Allport, 1924). The perspective taken was that individuals are real and that groups are “sets of ideals, thoughts, and habits repeated in each mind and existing only in those minds” (Allport, 1924, p. 9). Social psychology tended to focus on the relationships between individual group members vis-à-vis the ‘group’ as an entity, leadership, and group composition factors, with some study of inter-group relationships (D. Myers, 2010). Embedded contexts that were found external to a group were not considered relevant to understanding group behaviour. Those effects that occurred beyond the parameters set for experimentation i.e. changes in an individual’s embedded contexts (e.g., community or societal level events) were of little interest and called ‘distal effects’ (Brunswik, 1947; Kanfer, 1990; Shrout & Bolger, 2002). These sorts of effects were considered outliers when constructing and testing a social psychology theoretical model.

Social psychology was (and is) a perspective of science that requires finding the underlying psychological factors “involved in the origin, development, structure, and functioning of social groups” (Giddings, 1922). Once again, dynamic changes in group behaviour over time were much less relevant with this approach. Group behaviour was the product of individual member interplay observed over the short

term, free from the influence of extra-group contexts and the effect of time. A position that set in motion the divergence of social psychology from sociology on the study of group behaviour (D. Myers, 2010).

Complexity

The complexity perspective tends to focus on the interplay between all social entities—individuals, groups, communities, and societies—when providing insight into group behaviour that adapts over time. The complexity perspective also provides insight into the connective ‘tissue’ between all social entities and the dynamics a group’s experiences that are caused by those relationships. Complexity is a product of von Bertalanffy’s (1968) general systems, Weiner’s (1948) cybernetics and Forrester’s (1961) work on system dynamics (R. Abraham, 2011). General systems theory (GST) employed the general laws of thermodynamics to explain living organisms or groups as closed systems or open systems that displayed nonlinear behaviour. Cybernetics offered systems thinking as a method to understand how a system functions. System dynamics provides a representation of the real world that “can accept complexity, nonlinearity, and feedback loop structures that are inherent in social and physical systems” (Forrester, 1994, p. 245).

Within general systems theory (GST), an open system survives on its ability to acquire energy (information) and adapt to positive and negative feedback loops it experiences from its surrounding environment. A closed system is unable to perform these functions and will eventually cease to be viable. When an open system experiences a negative feedback loop, it will make the required adaptations to maintain a stable equilibrium state (D. Katz & Kahn, 1978). For example, a thermostat-controlled room adjusts room temperature when it senses a change away from the set room temperature (stable equilibrium). The drive to maintain a stable internal equilibrium state (homeostasis) makes a system resistant to sudden change induced by external or internal forces (Holland, 1995; D. Katz & Kahn, 1978).

The use of GST by researchers has continued a current level of theoretical support with the study of groups (Bailey, 1990, 1994, 2006). GST presents an understanding of how a group is structured (von Bertalanffy, 1973), with a selective focus on understanding certain aspects of group behaviour at the expense of understanding a

group's interplay with its contextualised environment, which exist separately or overlaps (Walby, 2007). Further, GST requires the presence of a contextualised environment that forms a nested hierarchy that is in a rank order, where predictable patterns of interplay occur (Drack & Schwarz, 2010). GST is unable to account for multiple simultaneous instances of interplay across a group's differentiated contextualised environment (Connors & Caple, 2005). The lack of understanding provided by GST into how a group function as a constraint when trying to theorise group behaviour.

With the introduction of cybernetics, systems-thinking was provided with the ability to study how groups functioned through insights on how a group behaves when it experiences positive or negative feedback loops. As a group interacts with its contextualised environment, it will experience positive feedback loop(s) that will encourage change or negative feedback loop(s) that will retard change. Experiencing a positive feedback loop will initiate and accelerate adaptation to a group's behaviour by shifting the group to a new homeostatic state (Walby, 2007). Further, Cybernetics provided systems thinking with the ability to view group behaviours as emergent patterns that are a product of the self-organisation of recursive individual behaviours—individual behaviours that were the result of a group's interplay with its contextualised environment and not restricted to those behaviours produced by a group's interactions that occur across its nested hierarchy (Snyder, 2013).

As a group interacts with its contextualised environment, it must incur "selection and temporality" (Walby, 2009, p. 14). Selection is the demand placed on a group to select the change to adapt to out of several changes it is presented with. The process of adaptation involves temporality since adaptation takes time. A group's ability to adapt is governed by a group's fitness landscape (Wright, 1931, 1932): a landscape that is a multi-dimensional space in which each of a group's dynamical layers holds multiple points in that space (Levinthal, 1997; McKelvey, 1997; Wright, 1931, 1932). Each of these points is an indication of the fitness level (strategic approach) a group can apply towards completing a task. A group exists within a landscape of strategic choices it can make when faced with the changes in its contextualised environment, where it can make adaptations that can offer the group

avenues towards goal attainment. These strategic choices are arranged across smooth or rugged fitness landscapes and can result in small to large adaptations in group behaviour (Holland, 1975; Kauffman, 1993).

A smooth landscape is populated with group strategies (peaks) that only vary slightly; adaptation in group behaviour to changes in a group's contextualised environment will be small and gradual over time. The slow pace of behavioural adaptation will result in a group being unable to notably change group function in the short term (Sinha & van de Ven, 2005). A smooth landscape offers a high level of adaptation predictability through the application of coordinated normative behaviour (Levinthal & Warglien, 1999). The high degree of predictability places little demand on a group's need to explore and find new group strategies (A. Lewin, Long, & Carroll, 1999).

A rugged landscape is populated with multiple group strategies (peaks) that differ greatly in outcome while being closely packed together, offering little in the way of predicting how a group will adapt its behaviour (Levinthal, 1997). A fitness landscape becomes more rugged when there is a high level of interdependence between members creating the situation, where a small change in a group's dynamic influence leads to a large adaptation to a group's behaviour (Arrow et al., 2000) and alters the group's performance (Sinha & van de Ven, 2005). The heightened level of unpredictability creates a need for increased member interdependence as the group is encouraged to search out the best strategies available (A. Lewin et al., 1999). In the end, a group's fitness landscape is a statement of a group's relative ability to adapt to change or, more poignantly, the ability of a group to thrive and survive. A group's behavioural adaptations are the modification of their existing behaviours as they strive to improve their fitness. Those adaptations are the result of a group altering its structure, goals, and behaviour (Arrow et al., 2000; McGrath & Tschan, 2004). A group's adaptability reflects how a group responds to and anticipates changes in its influential power (Burnes, 2004; R. Lewis, 1994; McGrath & Tschan, 2004).

However, the outcome of a group's behavioural adaptation(s) will vary in the degree of perceived benefit or loss to a group (McGrath & Argote, 2001; Rivkin, 2000;

Siggelkow, 2001), resulting in possible failure or success of a group adaptation to changes within its dynamic influence (Baron et al., 1994). A group's knowledge of these adaptation outcomes can provide them with the ability to decide when to implement a behavioural adaptation that can either be predictable and controllable or unpredictable and uncontrollable (McGrath & Tschan, 2004). Predictable and controllable adaptations allow a group to decide if and when the resulting adaptations will be of most benefit to the group (McGrath & Argote, 2001). If a group assess the adaptation outcome as unfavourable, this will encourage the group to block or delay those interactions with their embedded contexts.

When the adaptation outcome is predictable, a group will experience a path-dependent adaptation that members identify as a 'tried and true' adaptation that has a predetermined level of outcome success based on past experience (Walby, 2009). When a group makes this type of adaptation, it will maintain the behavioural equilibrium-state trajectory reflective of that adaptation. Those adaptations that are unpredictable and uncontrollable can offer a group unknown potential benefits or can cause loss to occur when a group experiences bifurcation (McGrath & Argote, 2001). Adaptations that demand a group adapt quickly without prior knowledge of the adaptation outcome have reached a bifurcation point, where the resulting adaptation will lead to an unknown outcome and a shift by the group to a new behavioural equilibrium-state trajectory.

A group will experience path dependency when it selects strategic choices found within its smooth landscape, where a strategic choice is selected without consideration of changes a group has experienced from within its contextual circumstances (Pierson, 2000). Contextual circumstance is the state that exists both within and external to an organisational unit at one moment in time that has been shown to influence unit effectiveness. External contextual conditions will affect organisational unit performance and will act as driving forces to effect content changes, i.e. restructure the awards offered by a school with the goal of improving a school's performance (Self, Armenakis, & Schraeder, 2007). Internal context as described by Mowday and Sutton (1993) as the influence the organisation has on

beliefs, attitudes, intentions, and behaviour of individuals within an organisational unit.

A generic form of group development occurs when a group applies a standard form of behavioural adaptation that historically has been successfully applied numerous times: path dependency (Arthur, 1989; R. Cowan & Gunby, 1996; David, 1985). Path dependency is a non-proportional change that represents a nonlinear causal relationship existing between organisational units during the process of adaptation (Capra, 1997; Kauffman, 1993; Waldrop, 1992a)—a relationship that is counter to traditional systems thinking, where the cause and effect relationship of interplay is considered proportional (linear) and related to system equilibrium. When one aspect of a group's contextualised environment enables an adaptation in group behaviour, that adaptation not only affects their contextualise environment that is directly involved but will affect an adaptation across their entire contextualise environment (Henman, 2003). For example, a group can change how it interacts with its school, leading to a change in how the school interacts with the university and how the university interacts with society.

As a group experiences a shift to a new homeostasis state, system dynamics (systems thinking) views that shift as a movement from its current state to a more desirable state and improved function. A system identifies this difference through feedback it receives regarding its homeostasis state (Capelo & Dias, 2009). Systems thinking views group function and structure as isomorphic, similar across all groups (Agazarian & Gantt, 2005), where a group's goals can take two forms: primary and secondary goals. Primary goals are the continued survival, development and transformation along a scale of group development (Agazarian, 1994). Secondary goals represent the tasks a group is required to complete as part of a group's day-to-day function. For a group to function, they must receive and organise information that enables the attainment of primary and secondary goals. When group goal attainment becomes difficult (i.e., the status quo for group behaviours becomes no longer viable), i.e. due to internal or external shocks, social psychologist Kurt Lewin (1951) offered his force field theory as an explanatory device for describing how group adapt to these forces.

The force field theory posited that tension and balance between social forces drive change and that those forces that resist change seek to maintain a group's status quo (i.e., equilibrium state). To enable a group to attain a goal can require them to shift their equilibrium state and demonstrate new behaviours. The need to shift to a new equilibrium state places these social forces out of balance, and atypical group behaviours can result, in the form of internal conflict. For example, when a large coalition within a group, advocates change and is resisted by a smaller coalition, conflict can ensue, with the smaller coalition adapting a siege mentality. Lewin displayed that by reducing resisting forces, a group can shift to a new equilibrium state that will enable goal attainment (Agazarian & Gantt, 2003). However, if the opposite occurs and resistive forces are increased, the group will not shift to a new equilibrium state and will demonstrate more noncompliant behaviours, leading to group dysfunction. The stronger presence of change forces will also prompt a group to shift to a new equilibrium state (Agazarian, 1999). Systems thinking from the perspective of social psychology views adaptations in group behaviour as the result of members changing the level of restraining forces.

The ability of system dynamics to provide insight into complex social phenomena that was the product of the interaction between individuals became very attractive to the sociology psychology perspective (Jacobsen & Law-Yolle, 1983). The outcome of this interaction, through the application of system dynamics, displayed that group behaviour as a product of a group's structure and to change group behaviour requires a change to a group's structure (Wolstenholme, 1990). Research into group behaviour was system dynamics' primary focus: the study of closed systems where current group behaviour is a product of past group behaviour (Forrester, 1968). A closed system generates its behaviour internally over time, where "the causes creating the behaviour of interest lie within the system" (Forrester, 1994, p. 254).

Contrary to this view was how system dynamics treated open systems, where displayed behaviour was not influenced by the outcome of past behaviours but by the effects of external events and forces found within a system's contextualised environment (Pruyt, 2013). System dynamics had the ability to address both partially open and closed systems simultaneously, contextual states that are

demonstrated by complex social systems (Meadows & Robinson, 1985). Systems dynamics offers a research perspective that allows the study of natural phenomena beyond the limitations of laboratory experimentation (Jacobsen & Law-Yolle, 1983), where the data are typically time and situation specific, limiting the ability to generalise study results.

Systems dynamics made it possible to gain an understanding of group behaviour that was the product of simultaneous interactions with multiple contextual influences over time (Jacobsen & Law-Yolle, 1983). This approach also provided an ability to account for the multiple feedback loops that change over time (Jacobsen & Law-Yolle, 1983). The need to only address linear cause and effect causal relationships could be expanded to include nonlinear causal relationships (Forrester, 1994). Systems thinking to this point has displayed robust growth and development but still does not solve the dilemma of understanding fully open or closed complex social phenomenon. This dilemma sparked the need for expansion in systems thinking, and complexity emerged as the answer to this dilemma within social science.

The most significant dilemma was the tension between the applicable general systems theory and the need for a more in-depth explanation of social phenomena (Calhoun, 1998; L. Griffin, 1993; Haydu, 1998; Kiser & Hechter, 1991). This tension took centre stage with the discussion of the differences between the epistemological paradigm of realism (Archer, 1995; Bhaskar, 1978) and post-modernism. What has become apparent was the need for a research perspective that offered an understanding of group behaviour as a product of its interaction both within and across its contextualised environment, influenced by time, that went beyond GST, cybernetics, and systems dynamics. The solution was complexity, which is a “conceptual toolbox”, offering differing methods for the understanding of social phenomena (Walby, 2007, p. 456).

Complexity provides a more useful understanding of diverse constructs while not sacrificing the ability to analyse and explain causation (Walby, 2003). Traditional systems thinking of equilibrium, linear cause and effect are abandoned for a view of social systems that can exist far from equilibrium and function through nonlinear

cause and effect relationships (Thietart & Forgues, 2011). The presence of nonlinearity provides a theoretical framework for the study of social change and diversity, as a product of dynamical interactions between a social system and its contextualised environment. Complexity can provide an understanding of how a social system relates to this environment through the interplay within and between social systems over time (Calhoun, 1998; L. Griffin, 1993; Haydu, 1998; Kiser, 1996; Kiser & Hechter, 1991).

Complexity rejects the old assumption held by sociological systems thinking that a system is continuously trying to maintain homoeostasis, in favour of a more dynamic view of equilibrium that can be far from homoeostasis and is the product of the interaction between a social system and its contextualised environment (Walby, 2003). Complexity is an anti-reductionist paradigm where the study of group behaviour is a conceptualisation of simultaneous, non-linear, and dynamic interplay that exists between a group and its contextualised environment (P. Anderson, 1999), where group behaviour is a product of self-organisation: the dynamic shift in the balance between positive and negative feedback loops vis-à-vis achieving a better fit within relevant larger contexts a group exists within (Lichtenstein, 2000).

As group behaviours self-organise, they emerge as dynamics that are free from central control (Bennett & Bennett, 2004), and displaying observable behaviours that appear random and chaotic, but are centred around identifiable points called attractors (Baron et al., 1994; Lichtenstein, 2000). An attractor is a stable state of behaviour that complex system elements are drawn towards and tend to maintain unless they experience overwhelming positive feedback loops (Guastello, 2007). Attempted variance from that state is countered by the group applying resistive forces (K. Lewin, 1951).

As a group develops, its interactions with its contextualised environment increase and complex patterns of behaviour begin to emerge and self-organise around specific attractors (P. Anderson, 1999). These new emergent behaviours reflect a group's shift away from its traditional equilibrium state to a new equilibrium state. A group is a complex, adaptive system (CAS) that is simultaneously interacting with its contextualised environment over time, adapting to changes it incurs from within

that environment (Gell-Mann, 1994). The numerous and diverse interacting parts of a CAS are typically arranged in a hierarchical structure, where one system fits within the boundaries of another (Simon, 1995). The hierarchical structure is not sequential, and interaction is void of central control. The product of interaction is behaviours that self-organisation and emerge as group dynamics.

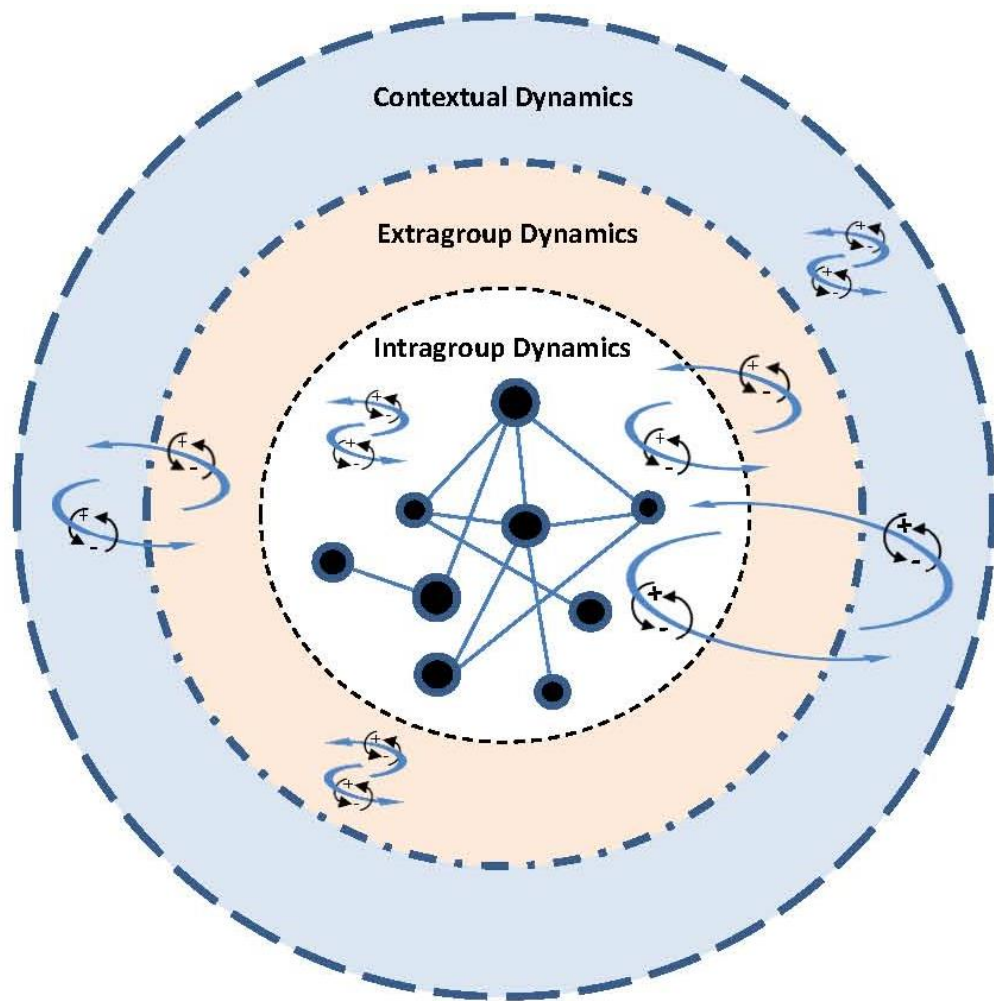
2.4. Groups as Complex Adaptive Systems

Viewing groups as CAS has begun to get traction amongst group researchers (Arrow, 2005; Arrow et al., 2000; Campbell, Flynn, & Hay, 2011; Davis, 2015; Desai, 2010; D. Griffin & Stacey, 2005; Kozlowski & Bell, 2003; Kozlowski, Watola, Jensen, Kim, & Botero, 2009; McGrath et al., 2000). The relevance of CAS to group research emerges from four specific areas of interest: the structure of a CAS, the effect of the passage of time on a CAS as seen through change, self-organisation, and emergence.

CAS models the relationship between a group and its contextualised environment, providing a theoretical approach to the study of group behaviour (Eidelson, 1997). The structural framework a CAS is composed of a hierarchy of three open system dynamical layers—intragroup, extra-group and contextual (Zimmerman, Lindberg, & Plsek, 2001)—which are under the influence a group's contextualised environment and time, void of centralised control (Eidelson, 1997) (see Figure 2.1). Holland (1995) viewed each of these levels as populated by “individual units or agents” (p. 26) that simultaneously exist and interact with other layers of the CAS hierarchy (Eidelson, 1997). For example, a group member can also be a member of an association that is a part of a government body.

Interactions within and between the three levels are continuous and bi-directional and do not follow a sequential order. The interactions between individual units and layers are under the influence of negative and positive feedback loops. A negative feedback loop occurs when a change to one element in a system, originating from within or from outside that system, stimulates behaviour that tends to either move the system to return to or maintain its equilibrium level (Walby, 2007). When a group finds itself dealing with new topics it will apply known problem-solving methods (negative feedback loops), maintaining their behavioural equilibrium state.

Figure 2.1. Dynamical Systems Model



Negative feedback loops seek to maintain stability and the status quo. A positive feedback loop is experienced when a change in one system element, which originated from within or from outside that system, stimulates behaviour that seeks to move the system away from its equilibrium state. Even small changes in a system can stimulate movement far away from its equilibrium state to a new state (Eidelson, 1997) when a level of positive feedback loops incurred overwhelm a group's effort to maintain its current behavioural equilibrium state.

The effect of positive and negative feedback loops parallels Lewin's (1951) nonlinear driving and restraining forces; driving forces (positive feedback loop) promote change, and restraining forces (negative feedback loops) resist change. Driving forces can stimulate new group behaviours to build toward a tipping point, where self-organisation occurs incrementally, and those new group behaviours coalesce into a stable, dynamic pattern. Incremental (or evolutionary) change usually occurs

in a naturalistic group in situations where there are competing pressures between negative and positive feedback loops and the positive outweigh the negative. For example, when a group is required to solve problems that it has little history of solving will apply known problem-solving methods until these are found to be ineffective. The group will then experience successive positive feedback loops that will build in pressure eventually overcoming the resistance to maintain current problem-solving methods for innovative approaches that meet their needs, incurring a shift to a new behavioural equilibrium state.

In extreme cases, however, the driving forces of change may be so overwhelming (e.g. threat of imminent demise of a company due to a complete collapse in its market), that a shift to a new behavioural equilibrium state is immediate and powerful, giving rise to discontinuous (or revolutionary) change. A company facing going out of business will make radical changes, layoff staff and slashing production to cut costs and remain viable. The source of positive and negative feedback loops can originate from each of the three dynamic layers of the CAS model, (recall Figure 2.1). Similarly, the effect of this feedback can be experienced both across and/or within those same three layers, (recall Figure 2.1).

Within this dynamical systems model, the intragroup dynamics layer is composed of group behaviours, goals, and procedures that are the result of the interplay between members in their engagement to complete tasks, (recall Figure 2.1). The intragroup behaviours are also the result of the interaction between the intragroup, extra-group, and contextual dynamic layers. The extra-group dynamics layer is populated with group behaviours that are displayed when a group interacts with external social entities (i.e. group identity, response to external conflict, group performance). The group behaviours displayed within this layer are under the influence of the interplay between elements of this layer and a group's intragroup and contextual layers. The contextual dynamics layer is where the extra-group dynamics are under the influence of changes that occur within and across a group's contextual environment (Arrow et al., 2000; Vallacher & Nowak, 1994a). All three dynamical layers change over time and collectively represent a group's dynamic influence on their contextual environment.

CAS is void of a central control system where the hierarchical structure functions autonomously, allowing interplay across levels and between individual units, with the ability to respond independently to local events (Holland, 1992, 1994; K. Kelly, 1994; Langton, 1996). The role of norms is often seen as methods of coordinating group behaviours and resolving group conflicts without the need for a central authority (Axelrod, 1986). Axelrod (1986) also found 'metanorms', which placed an expectation that group members will punish members who fail to punish those who are norm violators and was a method employed by groups to maintain its normative structure.

The connections between CAS components vary in strength depending on the distance between components. Components that overlap will have a stronger bond than components that border each other; this bonded state is termed 'near decomposability' (Simon, 1995, 1996). Huberman (1992) applied near decomposability to explain why this provides CAS with the effective isolation of interconnected components within a given layer from those found in adjoining layers, where the changes that rapidly occur within the lower layer and the quasi-static constraints found in the upper layer of a CAS hierarchy will not directly affect one another. The effect of a group being required to solve problems that it has no history in dealing with will require rapid adaptation of their problem-solving methods resulting in an immediate effect on their function. The rapid set of changes at the group level will not immediately affect an organisation as a whole due to the effective isolation of a group from within the overall organisation.

The number of connections between units and the strength of those ties has a consequence for group behaviour. When units interact, there is a reciprocal pattern of interaction, where changes occur within both interacting units. The number of interactions that a unit is involved with will determine the level of change that unit will incur (Huberman & Hogg, 1995). It is argued that the interdependence between group members and the quality of their interactions should be aligned to offer a higher level of group viability (Merry, 1995). However, if a group has a high degree of interdependence and the relationship quality is poor, will be better able to withstand times of conflict and crisis (Eidelson, 1997). Weakened relationships

between members allow individuals to self-organise themselves into new identities that are better able to adapt to sudden system shocks (Merry, 1995).

For a group to remain viable, it must attain three goals and demonstrate three processes. The first goal a group must be able to complete is a task or an ongoing set of tasks it is required to perform. The second goal is for group members to facilitate members meeting their needs. The third goal is for a group to maintain and continuously support its viability and integrity (McGrath et al., 2000). A group must be able to process information and generate meaning. When a group incurs conflict, it must demonstrate the ability to manage conflict and develop consensus. Lastly, a group has to motivate, regulate, and coordinate member behaviour (Arrow et al., 2000). The three goals and three processes are the product of member interaction between members and the three layers of a CAS. As a group develops over time, its group behaviours begin to emerge and are applied as a group interacts with its members and its contextualised environment.

The question raised is whether there is an optimal level of interdependence within a group. It has been found that a low degree of interdependence will result in a CAS being slow to coordinate adaptive responses to changes within its contextualised environment (Varela, 1995; Varela, Sanchez-Leighton, & Coutinho, 1992). Kauffman (1993) noted that when there is a high level of interdependence between units, the ability for CAS to react declines to near paralysis level. Group development can proceed rapidly if, while adding members, the number of interactions between members is held constant (K. Kelly, 1994). What has also been found is that disproportionate group numbers, numbers that exceed the critical mass, decrease a group's ability to take collective action (Glance & Huberman, 1994; Huberman & Glance, 1993).

The presence of self-organization and emergence are critical elements of CAS. Barton (1994) outlined self-organization as "a process by which a structure or pattern emerges in an open system without specifications from the outside environment" (Barton, 1994, p. 7). CAS applies self-organisation as the natural "progress from chaotic, disorganised, undifferentiated, independent states to organised, highly differentiated, and highly interdependent states" (Farmer, 1995, p.

368). The central theme of self-organisation is the interaction between a CAS maintaining its essential identity while ongoing nonlinear changes occur that are self-induced (Eidelson, 1997).

In organisations, groups experience varying levels of control over self-organisation that runs a continuum from low to high level. A self-managed group receives a low degree of control versus a highly bureaucratic group that receives a high level of control (Bennett & Bennett, 2004). The presence of high level of self-organisation provides a group with an ability to withstand and thrive when abrupt changes occur within its contextualised environment. These periods of disequilibrium are deemed necessary to enable a group to grow and further develop its behaviours (Wheatley, 2006). "In sum, the dynamic between self-organization and emergence are like function and flow in CAS" (Edson, 2010, p. 9).

Emergence is a process of self-organisation (Lichtenstein, 2000) that involves complex systems where "the agents have a high degree of freedom to organise themselves to achieve their local objectives" more efficiently (Bennett & Bennett, 2004, p. 209). A system is organised to attain goals through the application of their form of governance. According to Checkland (2008), the emergence of is not a concept involving the sum of a system's properties but involves the all of a system's properties. The principle states that a system's behaviours are only meaningful when displayed by the whole system and are not a product of a systems individual properties. Therefore, system behaviours cannot be reduced to individual properties.

Emergence is a phase transition (bifurcation point) process that involves all of the properties of a CAS where it shifts to a "state the system prefers to be in over other states at a particular point in time" (Steenbeek, Jansen, & van Geert, 2012, p. 66). A bifurcation point is observed when an infant demonstrates coping behaviour when they "use their social-cognitive skills for social referencing, signalling distress and frustration, and eliciting specific forms of assistance from the caregiver" (M. Lewis, Zimmerman, Hollenstein, & Lamey, 2004, p. 56).

A system is under the influence of its contextualised environment that is constantly changing. The adaptation of a system to these changes occurs through patterns of

self-organization and intrinsic dynamics. These constant state of change causes a system's behaviour to fluctuate were the amplitude of those fluctuates typically is not great enough to induce emergence. However, if changes from within a system's contextualised environment are influential enough to cause the system's behaviour to become unstable and creates an increased amplitude of fluctuation than a system begins to demonstrate 'Critical Fluctuations' just prior to reaching a bifurcation point (Baba & Nitta, 2014; Baron et al., 1994; R. Schmidt, Carello, & Turvey, 1990). Critical fluctuations represent a dramatic change in group behaviour which dissipates after bifurcation (Haken, 1978, 2006; Scheffer et al., 2012; R. Schmidt et al., 1990). The identification of critical fluctuations provides insight into how behavioural patterns are formed. These fluctuations are also testing the stability of a system's behavioural equilibrium state in an effort to find a new and better problem-solving method (Kelso, 2000).

A bifurcation point is a spontaneous point of self-organisation that results in a group experiencing a shift to a new equilibrium state and displaying new behaviours. The outcome of a bifurcation point is unpredictable, despite knowing a group's previous behaviour (Stacey, 2007), and can involve a group moving to a more stable state beyond the bifurcation point (F. Abraham, 1995). A pitchfork bifurcation point offers two states of stability, where the choice is driven by nonlinearity and the interplay between fluctuations and deterministic laws (Nowak & Lewenstein, 1994). As a bifurcation point is approached, fluctuations in group behaviour are apparent, and with the onset of bifurcation, those previous fluctuations may determine which behaviour a group adapts (Prigogine & Stengers, 1984).

The emergence of extra-group dynamics has been found to underlie group attitudinal change, which is the result of social pressure (negative feedback loops) applied by fellow group members to align the attitude of all members (Latane & Nowak, 1994). Social pressure takes the form of nonlinear driving, and restraining forces (K. Lewin, 1951) applied to either maintain a current view or accept the view held by others. The resulting change would be incremental until a member adapts their attitude. The change in attitude can represent a move towards the polarisation of group behaviours when a group is faced with an internal or external shock.

Latane, Nowak, and Liu (1994) examined the emergence of polarisation of opinions, where those members that held an opposing opinion counter to that held by a group's majority did, over time, demonstrate a diminished but not extinguished level of opposition. Self-organise equilibrium occurred when the minority in a group that held a differing opinion to that held by the group's majority formed into an isolation cluster (Latane & Nowak, 1994). The clustering process allows a minority to continue their rejection of the majority's influence to change their position, thus creating a faction (a bifurcation in group structure). Those of the minority that strongly held the opposing opinion(s) were also able to change the view of those in the majority who were less committed to the majority opinion.

The self-organisation and emergence that occurs when a group makes a decision that requires collective action was found to present two stable but contrasting outcomes (Glance & Huberman, 1994). A group can react with by displaying group commitment to cooperate or disagreeing. The reason for the movement by a group towards either of these two states was the level of uncertainty held by members about the behaviours and goals held by their colleagues. A group that was small in number, heterogeneous in membership, and had a long-term view of a decision's implications was found to display a cooperative collective decision-making process (Glance & Huberman, 1994).

The process of self-organisation is influenced by mechanisms of positive and negative feedback loops that affect a system to either maintain a desired state of equilibrium or move far away to a new state of equilibrium (R. Ford, 2008). As a system is under the influence of change from within its contextualised environment, it can adapt to those changes, remain unchanged, or partially adapt. Negative feedback loops will dampen the influence of change to a system by returning the system back to its traditional equilibrium state (D. Katz & Kahn, 1978). Positive feedback loops may amplify the period of change a system goes through until a behavioural adaptation occurs and a group reaches a tipping point and a shift to a new state of equilibrium occurs (R. Ford, 2008). The amplification of positive feedback loops on a CAS's nonlinear interactions creates a snowball effect, where the presence of a positive feedback cycle becomes self-reinforcing, thus amplifying

the size of adaptation to a small change from within a group's contextualised environment.

The effect of negative feedback loops on self-organisation can lead to placing a group's viability in question when it resists adapting to a dramatic change and falls into a 'competency trap' (March & Heath, 1994). A competency trap is when a group maintains a behavioural equilibrium state because it is known and forsakes change towards a new state because it is unknown. Once a group enters the trap, they rely on past behaviours to meet future demands despite receiving sub optimal outcomes. The repeated reliance on past behaviours makes a group less motivated to self-organise and adapt its behaviours, even when faced with a dramatic system shock. A group's inability to successfully respond to a dramatic shock places their viability at risk.

The process of self-organisation does not result in a CAS reaching and maintaining a static equilibrium state. Self-organisation results in internal fluctuations (intrinsic dynamics) at the intragroup dynamic layer (recall Figure 2.1) (Kelso, 1995). The presence of small fluctuations in member behaviour created changes in overall group behaviour over time (Vallacher & Nowak, 1994b). These changes occur through the 'mouse paradigm' where group members gravitate incrementally towards a desired behavioural change until a tipping point is reached and the group adapts this new behaviour (Vallacher, Nowak, & Kaufman, 1994).

Demonstrating a desired behavioural equilibrium state did not cause the behavioural fluctuations to stop; they are ongoing, continuing to cause changes in a group's behaviour. The effect of intrinsic dynamics was also displayed by Youssefmir and Huberman (1997), where they provided a group of subjects with incomplete information about an environment where they had to compete for limited resources. The subjects strived to attain optimal individual outcomes through the application of multiple strategies as the group evolved and became more complex. As the group attained resource equilibrium, individual members continued to apply differing strategies (fluctuations) in an ongoing effort to improve their situation.

A group's behaviours are under the influence of positive and negative feedback loops and interaction between the three layers of a CAS. The group behaviours that

form the extra-group dynamics layer are displayed when a group must interact with other groups, its university, or societal entities. It is this dynamical level where the state of a group at any one point in time can be revealed, providing insight into what behaviours a group applies when interacting with its contextualised environment. The behaviours displayed within the extra-group dynamic layer are under the influence of changes that occur within a group and its contextual dynamics layer. The outer level of the CAS structure is the contextual dynamics layer, where a group interacts with its contextualised environment that exists outside the boundaries of a group. The interplay between all three dynamical layers can induce a group to adapt its behaviours, goals, and structure (Baron et al., 1994; A. Schmidt, Dolis, & Tolti, 2009).

Intragroup Dynamics

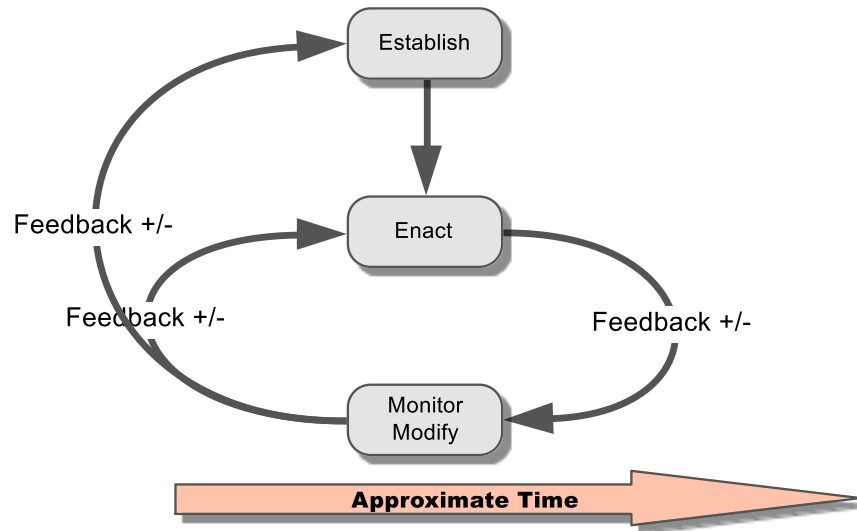
Intragroup dynamics is the layer of a CAS where the group members interact, generating recursive behaviours that self-organise and emerge in the form of a group's norms and procedures that shape a group's structure. These behaviours change over time and with the continuous interplay between this dynamics layer and a group's extra-group and contextual dynamics layers. The norms and procedures created are used to coordinate a group's intragroup constructs of members, tasks, and tools to build coordination networks (Arrow et al., 2000) (see Figure 2.2).

There are three phases of a coordination network: establishing, enacting, and monitoring/modifying is initiated when a group has a goal to attain (Arrow et al., 2000). The group is continuously assessing if the outcomes of a coordination network are meeting member needs and attainment of group goals. A group's dynamics are the processes (rules or norms) that guide how members will interact and are reflective of how individual members have adjusted to one another by altering their interests in how a group attains goals and how members meet their needs through group membership (Latane & Nowak, 1994; Nowak, Szamrej, & Latané, 1990; Tuckman, 1965).

The three elements of a coordination network are selected and acted upon to allow group goal attainment and facilitate meeting member needs. Members are driven to

either respond to their needs or to facilitate the achievement of group goals (Thibaut & Kelley, 1959).

Figure 2.2. Coordination Network



Adapted from McGrath and Argote (2001)

However, when a member can fulfil their needs, they will increase their level of “achievement, affiliation, power/control and material resources”, facilitating group goal attainment (McGrath & Argote, 2001, p. 609). The tasks are the steps taken to complete a group project and offer members a means to meet their needs (McGrath et al., 2000). The tools available to the group can be a combination of hard tools, technology, and soft tools, procedures and norms used by the group to direct group function (Tschan & Von Cranach, 1996).

The coordination network is a repetitive and continuous cycle that changes over time with changes in circumstance. The network is the selection and sequencing of the three elements in a manner that will best meet the demands of a group task while meeting the member needs (McGrath & Tschan, 2004). The term ‘coordination’ in this application refers to the coordination of member needs, a shared understanding of information amongst members, and the coordination of action amongst members (McGrath & Argote, 2001). These three meanings are applied to explain the group functions of managing conflict, reaching consensus, processing information, motivating membership, and regulating member behaviour (McGrath & Argote, 2001). The three phases of a coordination cycle each have

embedded continuous positive and negative feedback loops that are generated from changes in either of the three CAS dynamical layers (Arrow et al., 2000).

The ability for a group to complete tasks and meet member needs affects the group's level of satisfaction as an efficient and effective system (C. Mason & Griffin, 2005). A high degree of group satisfaction makes members more open to group task completion and to facilitate meeting member needs (Kozlowski & Ilgen, 2006). A low degree of group satisfaction will make members less forthcoming to assist with future group task completion or meeting member needs (C. Mason & Griffin, 2005). The level of member and group satisfaction influences a group's level of viability and integrity (McGrath et al., 2000). A high degree of group satisfaction is found in a group that demonstrates a high degree of viability and integrity (McGrath et al., 2000). Thus, the three goals that groups want to attain "are interconnected in a circular chain of interdependent causation" (Arrow et al., 2000, p. 47).

The priority placed on attaining these three goals will be affected by time and changes in a group's contextual circumstance. However, for a group to be a viable system, a minimal level of attainment of all three goals must occur (Hackman, 1990b; McGrath, 1991). The variability introduced by time and circumstance does induce a group to alter its priorities towards attaining any one of the three goals above. If a group neglects to address member needs or group goals, an imbalance within a group's interaction processes occurs, and the group will become unviable (Bales & Slater, 1955; Bales, Strodbeck, Mills, & Roseborough, 1953).

The attainment of the three group goals outlined by McGrath et al. (2000) will have varying levels of attention at any one moment in time. The level of attention changes when a group exerts a degree of self-regulation over the attainment of any one goal (Karloly, 1993). The presence of self-regulation implies that a group is a system that seeks to attain and maintain optimal goal attainment by directing resources as deemed necessary (Kozlowski & Ilgen, 2006). Optimal goal attainment requires the group to enact a self-regulation process that is influenced by positive or negative feedback loops with the aim of goal attainment (Salas, Stagl, & Burke, 2004).

Following Lewin's (1951) field theory, positive and negative feedback loops act as driving and restraining forces on a group's adaptation process. If a group experiences more driving forces versus restraining forces, they are encouraged to adapt their behaviours to enable goal attainment. A group that experiences more restraining forces versus driving forces will be encouraged maintain their current behaviour to have a positive result. As a group interacts with its contextualised environment, it encounters changes from within that environment that are sources of positive feedback loops that drive a group to adapt its behaviour to accommodate those changes. Unlike a mechanical system, a group is a social system that can adapt to changing contextual influences while attaining the group's goals. The ability for a group to adapt how it attains its desired goals adds another level of complexity to group function.

A member will assess if their needs are being met through group membership by the level of performance satisfaction they receive. Similarly, a group identifies the level of performance satisfaction it receives from its members through the application of coordination networks that lead to group goal attainment. Both the members and the group are assessing the level of satisfaction they expect from the relationship (Arrow, Henry, Poole, Wheelan, & Moreland, 2005; Moreland & Levine, 2004). The continuous influence of feedback loops allows members and the group an opportunity to adjust coordination elements and sub-networks to obtain desired outcomes. There are six subnetworks that can be applied to create a coordination network: member-member, task-task, tool-tool, member-task, member-tools, and task-tools (see Table 2.1).

A coordination network will offer optimal group performance when these subnetworks are sequenced in a manner that allows a group to attain a goal, meet a member's need or both (Balkundi & Harrison, 2006; McGrath & Tschan, 2004; Moreland & Levine, 1982). Initially, the coordination networks reflect the influence of a member's pre-existing sub-networks they have applied before becoming a group member (McGrath & Argote, 2001). The interaction between the pre-existing networks and the six sub-networks creates an initial level of complexity towards

how a group will function through establishing, enacting, and monitoring/modifying its coordination networks.

Table 2.1. Sub-networks

Network	Relationships	Example
Member	Between Members	Can be informal or formally defined
Task	Between Tasks	Provides the sequencing of tasks
Tool	Between Tools	Provides how to best use a tool
Labour	Between Members and Tasks	Delineates member task responsibility
Role	Between Members and Tools	Defines how members will do their tasks
Job	Between Tasks and Tools	Outlines what tool should be used for a task

Adapted from McGrath and Tschan (2004)

As the elements and element patterns are differentiated, sequenced, and timed, network patterns (behaviours) begin to self-organise and emerge as dynamics (Arrow et al., 2000). Members assume or hold task roles that enable them to meet their needs (Moreland & Levine, 2004). Tasks are ordered by priority and sequenced for completion and are chosen to either meet a member's needs or facilitate a group addressing its goals. Tool options are presented and selected based on utility and attractiveness to a member(s) or the group. Once the coordination network is applied, performance outcomes are assessed and modified as needed to ensure that effective combinations and sequencing of the three elements occur (Arrow et al., 2000).

What emerges is a more distinct differentiation between members who have differing element patterns (Arrow et al., 2000). Members can compare and contrast displayed network patterns to gain an understanding of the group's desired network patterns. The understanding creates a heightened difference between members and their preferred network patterns (Arrow et al., 2000). At this level of differentiation, members can align their group task expectations, creating familiar patterns of member coordination and shared mental models (DeChurch & Mesmer-Magnus, 2010; Lim & Klein, 2006; Marks, Zaccaro, & Mathieu, 2000; Mathieu, Heffner, Goodwin, Salas, & Cannon-Bowers, 2000). Coordination network patterns that become habitual will form into group dynamics, providing members with a heightened ability "to predict the actions of other members" (Arrow et al., 2000, p. 93), reaching an increased level of intragroup awareness that should correspond to

improve group effectiveness and problem awareness (Hackman, 1990a; Hackman & Morris, 1975).

The emergence of unexpected outcomes or events related to unforeseen circumstances can make implementing a coordination network untenable (Arrow et al., 2000). The response to this situation can be a member acting without group consultation, a coalition being formed and acting, or the group taking corrective measures during the implementation phase. The goal of taking corrective action is to adjust a coordination network through the assessment of performance to produce a positive result (Holland, 1995; Schneider & Somers, 2006). Taking corrective action will involve combining differing member needs and perceptions related to the corrective action, which can create a coherent group response (Arrow et al., 2000).

An important factor in keeping an implementation process moving forward is whether the action is plan driven or goal driven (Huber & Lewis, 2010). A plan of action can reflect a group's past action that has become normative behaviour. The success of a goal-driven action is the ability for a self-organised action to result in a member meeting a need or group attaining a goal (Arrow et al., 2000). The success of a plan can be evaluated by how well maintained the plan was versus the success of the plan (Arrow et al., 2000). Plan maintenance is used when the goals and the time frame for a plan are unclear (Weingart, 1992).

Coordination networks are modified by assessing their outcomes and making required adjustments based on those outcomes (Holland, 1995; Vallacher & Nowak, 1997). Those adjustments occur by changing either the element patterns between elements, tactics and strategy for implementation of the network goal (Vallacher & Nowak, 1997). The determination of whether or not an outcome was successful is dependent upon the chosen performance criteria and the nature of the group task (Eidelson, 1997). Modification refers to reciprocal changes that occur both within a group and when it experiences a change in its contextualised environment (McGrath & Tschan, 2004). Changes in a group's contextualised environment are represented by varying levels and volatility of potential group resources (Rousseau & Fried, 2001). As a group interacts with an unpredictable and uncontrollable contextualised

environment, it can control its interactions and outcomes, enabling goal attainment (Kozlowski & Ilgen, 2006; McGrath & Tschan, 2004).

A group can adapt its behaviour to change its contextualised environment from within by altering its structure to accommodate a better fit to the change demands (Kozlowski & Ilgen, 2006) or maintain the status quo (McGrath & Tschan, 2004). The outcome of a behavioural adaptation is frequently accompanied by unintended outcomes due to the nonlinear causal relationship, where a large behavioural adaptation occurs in response to a small change in a group's contextualised environment (Guastello, Craven, Zygowicz, & Bock, 2005; Waldrop, 1992b), as evidenced by the nonlinear causal relationship found within a group's 'rugged landscape' (Walby, 2007).

Further, whether the actions applied to complete a group task were or were not successful may not be immediately apparent to a group. When a behaviour is clearly identified as being linked to a desired or undesired outcome, a member or group can maintain or adapt its behaviours accordingly (Limon & Boster, 2003). However, when the results of an action are more ambiguous, the group must rely on assessment by external sources if a successful outcome has been reached (Baron et al., 1994). Once the assessment has been provided, and behavioural adaptations have been made by a member of the group to attain the desired outcome, member performance will improve (Kluger & DeNisi, 1996) or group size will increase (Goltz, Citera, Jensen, Favero, & Komaki, 1989). These adaptations are more likely to occur if only one member is required to adapt their behaviour and less likely to occur when two or more members need to make a common adaptation.

Behavioural changes that involve multiple members will be more complex due to the need to adjust their expectations on what type of performance outcomes will satisfy their needs (Nowak & Lewenstein, 1994). The adjustment of performance outcomes will also require members to adjust and better synchronise their actions with the other members. Longstanding members who have developed behaviours enabling them to meet their needs will be less likely to change their behaviours, even in the face of an outcome shortfall, decreasing a group's ability to adapt their behaviours (Davies & Kuypers, 1985; Nowak, Lewenstein, & Szamrej, 1993; Taggar,

2006). When a group's membership is mostly composed of short-term membership and is faced with an outcome shortfall, they will either adapt the related behaviour(s) or simply disregard the need to adapt its behaviours (Bandura, 1991; Hattie & Timperley, 2007).

The evaluation of a group's ability to attain desired performance outcomes is reliant upon a group's ability to assess the impact of internal or external forces on those outcomes. Rantilla (1996) found that groups would attribute success to behaviours applied by the group and failure to the behaviours implemented by external sources. A member can evaluate a performance outcome by focusing on the performance of another member, a subset of members, the group, the task outcome, the synchronisation of member efforts, or the group structure (Arrow et al., 2000). For example, if a member does not see their needs being met, upon review of why this occurred, they may discover that they assumed a task role that they were ill equipped to perform (Limon & Boster, 2003; Miller & Ross, 1975).

When a group fails to attain a goal, they can discover that the order of tasks was poorly conceived or the general creation of the coordination network was poor (Arrow et al., 2000). Once the failure to attain an outcome has been evaluated and corrective action has been taken, future task completion should improve. However, when a member has reached an undesirable outcome, they will attribute that failure to another source, which is a common response by a member, making the need for corrective action unnecessary (Miller & Ross, 1975).

While the group is assessing task outcomes: members are also assessing how their involvement in this process is allowing them to meet their needs (Limon & Boster, 2003). If a member finds their needs not being met, they will either adjust their involvement or stop their participation altogether (Limon & Boster, 2003). A member can change their participation by applying a different tool or changing to another task. As a member extends their tenure with a group, they refine their expectations of what assistance the group can provide towards meeting their needs. Members entrench their positioning using their professional seniority to apply a long-held view that is reflective of their expertise and is resistive to new information that can make meeting their needs less attainable (D. Katz & Kahn, 1978).

As a group continues to develop and apply successive coordination networks over time, the complexity of the coordination networks increases (Arrow et al., 2000). Increased complexity is the result of identification of new tasks, untapped member expertise, or increased provision of unshared and shared information (McGrath et al., 2000). New tasks are selected that are more suited to attain group goals or meet member needs. The untapped expertise and increased information sharing (Stasser & Titus, 2006) can be brought forward as the group goals or member needs become more apparent, expanding the number of tools a group (McGrath et al., 2000) can apply towards successful task completion.

As the patterns between elements become more evident, members begin to perceive the similarities and differences that exist between those patterns (Arrow et al., 2000). The perception of similarity leads to the creation of clusters of element patterns that are more dense than the perception of difference (Latane & Nowak, 1994; Simmons & Estes, 2008). Element patterns that present no differentiation are clustered and organised by importance and timing to the coordination cycle processes (McGrath & Argote, 2001). As clustering of element patterns grows, so increases the complexity found within the coordination networks, with a greater availability of linkage and element choices (Maquire, McKelvey, Mirabeau, & Oztas, 2010).

Extra-Group Dynamics

The intragroup dynamical layer is under the influence of continuous interaction with its extra-group and contextual layers. Where the outcomes of coordination networks are assessed for their success in meeting group goals and member needs (Baron et al., 1994; Vallacher & Nowak, 1997). Interaction patterns begin to emerge and develop over time as the members create relationships with each other—as tools are refined, resources are discovered, and the role played by a group's contextualised environment grows. Those interaction patterns that are recursive, influenced by positive and negative feedback loops, are refined into group structures and experienced as dynamics (Arrow et al., 2000; Vallacher & Nowak, 1997). These repeated patterns of group behaviour are the starting point and

ongoing measure of a group's development path and constitute the extra-group dynamics layer (Kelso, 1995).

Within this layer are the different behaviour patterns that a group demonstrates as it interacts with other groups and other social entities (i.e. intergroup conflict, group performance, group identity) (Baron et al., 1994). These behaviour patterns are stable, with new patterns emerging as interactions occur both within and across the boundaries of a group's contextualised environment generate a need for adaptation in a group's behaviour (recall Figure 2.1). As a group's behaviour moves between a point of relative stability to a state of change, a measurement of a group's development can be derived (Baron et al., 1994; Beek, Verschoor, & Kelso, 1997).

Despite this, research on group development lacks an examination on what group dynamics are experienced during the initial phase transition and enervate periods of continuity in group behaviour (Edson, 2012). In the group development literature, there has been a discussion of its effect on group performance (Worchel, 1996) and its role in the ability for members to meet their needs (Gersick, 1988, 1989). What a vast number of group development theories frequently focused on is the application of a general linear developmental process (McCollom, 1995; Mennecke, Hoffer, & Wynne, 1992; Wanous, Reichers, & Malik, 1984), where the theories vary on which process a group follows (Tuckman, 1965) or differ on developmental starting points (Worchel, 1994).

There are researchers who have not followed this trend with their application of contingency models that suggest that group development is unique to each group (McCollom, 1995; McGrath, 1991; Poole, 1983). These researchers have considered that a group's development can be related to changes in the extra-group dynamics layer over time (Cissna, 1984). Group development through the CAS model uses the change demonstrated by a group as an indication of it being drawn towards attractors that are found within the extra-group dynamics layer (Arrow et al., 2000).

Contextual Dynamics

Contextual dynamics is the layer where a group interacts with its contextual environment and makes adaptations based on the changes it experiences from within that environment. The contextual dynamics layer is the site of interactions

between a group and the larger contextual influences exerting pressures on the group. Those contextual pressures come from contexts the group is embedded within (e.g., university, and even greater, the tertiary education sector). Pressures are also initiated from within a group by members who are simultaneously embedded within other contexts (e.g., a professional society or association, a research network).

The adaptations at this layer are in the form of changes to intragroup and extra-group dynamics that allow a group to complete desired coordination networks that meet member needs and provide group goal attainment. McGrath and Tschan (2004) stated that the purpose of contextual dynamics is to “shape and constrain” a group’s intragroup and extra-group dynamics through adaptation (McGrath & Tschan, 2004, p. 54). A group’s contextualised environment comprises multiple contextual systems: environmental, organisational, interpersonal, intrapersonal, and group behaviours (Cooksey, 2001).

The group’s response to any one of these contextual environments is shaped by group history, group composition, group dynamics, nature of the contextual environment, and member outcome expectations (Arrow et al., 2000). The direction of adaptation is based on the group’s comparison of past interaction outcomes against future desired outcomes (Eidelson, 1997), creating a decision-making process that will guide how a group will presently respond to change it experiences from within its contextualised environment.

Two forces drive the adaptation process: one governs the flow of resources between the group and the contextual environment (Eidelson, 1997; Lomi & Larsen, 1996).

The flow is regulated by the group performing a cost-benefit analysis on the benefit(s) gained from the expenditure of group resources when interacting with its contextualised environment (Arrow et al., 2000; Laitinen, 2009). The second force is the influence of the intragroup and extra-group dynamics that are unique to each group and present the tendencies of how a group will adapt to change from within its contextual environment (Arrow et al., 2000). Those tendencies become more refined as the group develops and creates a more complex set of group dynamics. The interactions occurring at the contextual dynamics layer are continually and

mutually creating patterns of spontaneous self-organising behaviours in response to changes in the group's dynamic influence and from within a group's contextualised environment (Macintosh & Maclean, 1999; Stickland, 2007).

Dynamic Adaptation

A group adapts its behaviour when the accumulated influence of positive feedback loops reaches a tipping point and the resistance to change offered by negative feedback loops is overcome. As previously discussed, the influence of a negative feedback loop will facilitate a group resisting the need to adapt its behaviour and maintain its behavioural state. Over time, the pressure from the positive feedback loops overcomes the resistance from the negative feedback loops, requiring a group to adapt its behaviour and shift to a new behavioural equilibrium state.

A shift of this type requires a group to demonstrate resilience by adapting its behaviours accordingly or cease to maintain its functional integrity. Resilience are those group processes that allow it to increase its adaptive capacity and shape change through self-organisation (Berkes, Colding, & Folke, 2003; Smit & Wandel, 2006) while maintaining its functional integrity (Adger, Hughes, Folke, Carpenter, & Rockstrom, 2005; Walker, Holling, Carpenter, & Kinzig, 2004). Resilience provides adaptive capacity that allows a group the ability for continuous development (Smit & Wandel, 2006; Uhl-Bien, Marion, & McKelvey, 2007) as a product of the interplay between and within its contextualised environment.

The degree of adaptation that a group incurs through the causal relationship that exists between a group and its fitness landscape (Siggelkow, 2001). Fitness can be defined in different ways for example representing profit, attaining individual needs, or meeting organisational goals. A fitness landscape is a topographical map of "the actions of a set of individuals and their collective performance" (Levinthal & Warglien, 1999, p. 344). The map is composed of hills and valleys of varying size, the tallest peak or the deepest valley represents a group's optimal degree of performance (fitness).

A landscape can either be a single peak (smooth) or multiple peak (rugged) configuration (Kauffman, 1993). A single peak represents a lack of interdependence between group members where a member's optimal behaviour is independent of

others' behaviour (Levinthal & Warglien, 1999). Each member increases or decreases group's fitness by altering their contribution towards group goal attainment. Behavioural changes made by one member will not cause behavioural adaptations by their fellow members.

A multiple peaked (rugged) fitness landscape represents a group with an elevated level of interdependence (Levinthal & Warglien, 1999), causing the need for a group to adapt its behaviour in response to changes in its contextual circumstances.

Adaptation can lead to an improvement in group function or lead to dysfunction (Guastello et al., 2005; Levinthal & Posen, 2007). Improved function occurs when a group adapts without resistance making the required behavioural changes in a quick and succinct manner. If a group delays or resists making the required behavioural adaptations, they will incur dysfunction (Levinthal & Warglien, 1999).

A group's fitness landscape is composed of two constructs: internal fit and external fit (Siggelkow, 2001). The internal fit is the group's consistent set of behaviours and structures that it identifies with and routinely demonstrates. The external fit is the degree that a group's behaviours and structures 'fit' with the demands of a group's contextualised environment to produce the desired outcome. The greater the fit, the higher the performance outcome, which is represented by a high peak within a group's fitness landscape (Sinha & van de Ven, 2005).

If a group has a poor external fit, the corresponding peak within its fitness landscape will be low, and it will demonstrate a poor performance level. Changes in a group's contextualised environment will dictate its ability to perform well or poorly, as those changes affect a group's external fit. A group that has an internal fit that is inflexible will incur sharp performance declines with small changes in their contextualised environment (Levinthal & Siggelkow, 2001). Changes in a group's contextualised environment can have four different levels of effect on group performance (see Figure 2.3).

No change in performance level occurs when changes in a group's contextualised environment do not affect its internal fit, indicating a group is making strategic choices from a smooth fitness landscape. In this instance a group experiences a fit-

conserving change, its external fit is decreased, and its internal fit and function remain unchanged (Siggelkow, 2001).

Figure 2.3. Change Frameworks

		External Fit	
		No Change	Change
Internal Fit	No Change	No change	Fit-conserving change
	Change	Benign fit-destroying change	Detrimental fit-destroying change

(Siggelkow, 2001, p. 841)

However, the group's ongoing performance level will remain unchanged, but it will incur a decline in performance over time. When a benign fit-destroying change occurs, a group will incur damage to its internal fit with no notable decrease in its performance level (Siggelkow, 2001).

A detrimental fit-destroying change occurs when a group has destroyed its fit when incurring changes in both its internal and external fit (Siggelkow, 2001). Across a group's fitness landscape, a fit-destroying change represents a performance level that no longer optimal (Siggelkow, 2001). A group in this position will actively seek to change its function to address better the changes it experiences from within its contextualised environment. Groups that have a higher level of internal fit as represented by a fitness landscape with higher, steeper peaks (rugged landscape) will have a greater ability to react quickly to changes within its contextualised environment versus a group with a lower level of internal fit (Levinthal & Warglien, 1999).

A fit-conserving change is represented by a fitness landscape peak that has declined in height (Siggelkow, 2001). In this scenario, a group's function has shown signs of a decreased ability to adapt to the changes from within its contextualised environment. The performance decline is gradual, resulting in a lack of recognition of a misfit between a group's internal and external fit. In this situation, a group

tends to continue functioning in its traditional manner and accept declining performance levels. A group can make minor alterations to how it functions but incur an accelerated level of performance loss, confirming to a group that they were at their optimal performance level. These two scenarios represent the competency trap, where a group is held captive to the traditional ways of functioning (Levinthal, 1992).

A group that is experiencing a fit-conserving change situation can implement a wholesale change in behaviours to offset performance losses (Siggelkow, 2001). However, when a group breaks with traditional group behaviours and adopts new behaviours, the performance outcomes are unknown, and they can experience further performance losses. The change process a group must apply is to not only break with past behaviours but to contradict those behaviours they held as true, thus overcoming behavioural blind spots (Zajac & Bazerman, 1991) while legitimising their new behaviours (Suchman, 1995). The process of change requires a group to review and alter all their core group behaviours, which is a difficult task for any group to accomplish (Hannan & Freeman, 1984; Singh, House, & Tucker, 1986). Complicating this change process is the lack of time that a group must complete this review and implement changes. If a group takes too long to complete this process, they will incur continued performance losses due to their continued application of failed behaviours (Miller & Friesen, 1982; Miller, Friesen, & Mintzberg, 1984).

The relationship between a group and its contextualised environment can be very complex, creating a broad range of responses and adaptations (Hannan & Freeman, 1984; McGrath & Tschan, 2004). A group may respond to changes in its contextualised environment through acquiescence, compromise, avoidance, defiance, or manipulation (Alexander, 1998; Oliver, 1991). Acquiescence is the most passive response strategy that a group can evoke and refers to the adaptation of the requirements demanded by a group's contextualised environment. The adaptation strategy can take one of three forms: habit, imitation, or voluntary compliance (Oliver, 1991).

The habit strategy is when a group applies normative behaviour and unconsciously acquiesces to the demands of its contextualised environment. When a group applies the imitation strategy, it either consciously or unconsciously imitates how other groups respond to similar changes in their contextualised environment. The voluntary compliance strategy requires a group to comply voluntarily with the demands of its contextualised environment.

When a group responds to its contextualised environment through compromise, the group negotiates on three points: demands, responses, or a combination of the two (Alexander, 1998; Oliver, 1991). A group will negotiate regarding changes seeking minimal alterations to the demands or expected responses from the group.

Compromise is attained by balancing expectations, pacifying competing interests, or bargaining by seeking to balance competing exceptions by negotiating a compromise between the group and their contextualised environment (Oliver, 1991). A group may seek to pacify members that are resisting the demands of a group's contextualised environment by applying more resources. Lastly, a group may seek to bargain with their contextualised environment over the demands being asked of them.

A group may respond to the demands of its contextualised environment by simply trying to avoid the need to respond (Alexander, 1998; Oliver, 1991). A group may employ an avoidance tactic: concealment, buffering or escaping (Oliver, 1991). When a group uses the tactic of concealment, they present themselves as being compliant with the demands of their contextualised environment while not offering genuine compliance. The tactic of buffering requires a group to distance themselves from the need to respond due to confounding technical issues (e.g. being short staffed). A group can escape the need to comply with the demands of its embedded context by distancing itself from the domain of control held by elements within their contextualised environment.

If a group finds the requirements of its contextualised environment unpalatable, they can use the response tactic of defiance (Oliver, 1991). Defiance is an attempt by a group to remove the offending demands without negotiation and is the explicit rejection by a group of one or more of their contextualised environment demands:

through dismissal, challenge, or attacking (Oliver, 1991). A group can employ this tactic by outright dismissal of the offending demands. Here a group will make their contextualised environment aware that under no condition will they respond to their demands. A group making this challenge can raise a point of precedence, where the requirements run counter to how a group has adapted in the past to similar contextual changes (Oliver, 1991). The more dynamic method of defying the need for adaptation is to attack the demands as being harmful to the group (Oliver, 1991).

A group can use the response tactic of manipulation, where the group actively attempts to alter the demands of its embedded context (Oliver, 1991). Manipulation can be done through three different methods: co-opting, influencing, or controlling (Oliver, 1991). A group can attempt to co-opt the demands of their contextualised environment in a bid to nullify their ability to make those demands. For a group to influence the demands made by their contextualised environment, they will lobby for changes to those demands, so they are more palatable to the group. A more aggressive form of manipulation is for the group to attempt to control the requirements of their contextualised environment. This tactic would require a group to have leverage over the contextualised environment that is demanding that a group make a behavioural change (Oliver, 1991). Lastly, a group may adapt the requirements of its contextualised environment through a direct response or evolutionary change.

2.5. Group Dynamics

A group's behaviours are the emergent dynamic influences that guide how a group and its members interact (Hackman, 2012). These behaviours reflect the dynamics that unfold while a group is pursuing goals, facilitating members meeting individual needs, guiding interdependent relationships, providing structure for member interaction, and outlining the scope of its influence within its contextualised environment (Levi, 2014). There are numerous group behaviours that any one group can display at any one time that is indications of a group's dynamics and how those dynamics change over time. What stimulates evolution and change are feedback loops: system shocks that originate both internally and externally to a group.

Modern groups that operate within a dynamic contextualised environment are required to recognise critical changes and understand causal relationships that require adaptation of their behaviour (Ilgen, Hollenbeck, Johnson, & Jundt, 2005; Kozlowski, Gully, Nason, & Smith, 1999; Richter, West, van Dick, & Dawson, 2006). Research has revealed a number of behaviours that are recursive "influential actions, processes and changes that occur within and between groups over time" (Forsyth, 2010, p. 2). These recursive behaviours self-organise and become dynamics that take the form of information-processing (Janis, 1982; Ross, Jones, & Adams, 2008), maintaining group viability (Sundstrom, de Meuse, & Futrell, 1990), meeting member needs (Carron & Hausenblas, 1998; Hackman, Wageman, Ruddy, & Ray, 2000), group goal attainment (Hogg & Abrams, 2007), group structure (Arrow, 2006; Levine & Moreland, 1998), norms (Bettenhausen & Murnighan, 1985; Steinel et al., 2010), and dealing with conflict (De Dreu & de van Vliert, 1997; Jehn & Mannix, 2001; Rahim, 2002; Staw, Sandelands, & Dutton, 1981; Steinel et al., 2010).

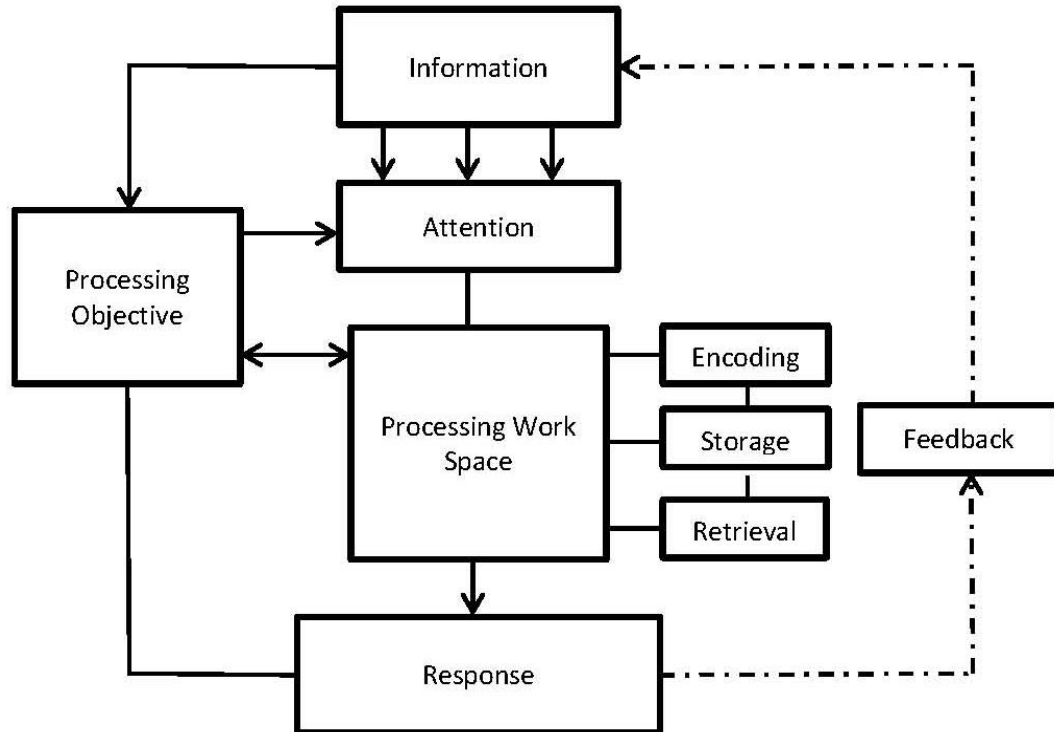
Information-Processing

The methods used to process information are unique to every group. The information-processing dynamic is composed of the behaviours that facilitate the intake, processing, response, and storage of information. Gaining an understanding of these behaviours reveals how a group attains and coordinates information that supports the dynamic of decision-making. It is shown that when groups do not use the best information they have available when making decisions they perform poorly (Bonito, Decamp, & Ruppel, 2008).

Information is processed through member interactions and by individual members (Ickes & Gonzalez, 1994). Group-level information-processing relies upon the degree of information sharing that occurs, which affects both group and member outcomes (Hinsz, Tindale, & Vollrath, 1997). The shared information can be related to group tasks, dynamics, or members, or a group's contextualised environment (Hinsz et al., 1997). A group must have shared information-processing behaviours or shared mental models amongst its members to function effectively (Stasser, Taylor, & Hanna, 1989; Stout, Cannon-Bowers, Salas, & Milanovich, 1999) (see Figure 2.4).

Shared mental models are information processes that are common among group members, providing them with a set of shared expectations.

Figure 2.4. Information-Processing Model



Adapted from Hinsz et al. (1997)

Members have a firm understanding of the group's skills, attitudes, preferences, strengths and limitations, allowing members to predict both the behaviour and the information needs of the group (Rasker, Post, & Schraagen, 2000). When a group has prior experience dealing with a task they have an ease of behaviour adaptation as task demands vary (Mathieu et al., 2000). However, the presence of a shared mental model is not indicative of effective group performance. What does impact group performance is the type and level of information shared (Stasser et al., 1989).

Group interplay is a continual flow of relevant and available information between members that allows them to perform cognitive tasks (make decisions) (Hinsz et al., 1997; Laughlin & Ellis, 1986; Laughlin, VanderStoep, & Hollingshead, 1991; von Cranach, Ochsenein, & Valach, 1986). Each member brings to a group a set of resources in the form of abilities, skills, and knowledge (Nijstad & Paulus, 2003) that represent both member attributes and the tools available to the group to complete tasks (Arrow et al., 2000). When a group interacts through discussion, information-

processing is occurring, where members have the opportunity to share information regarding what resources and tools they can make available to the group to facilitate task completion (Hinsz et al., 1997). The dissemination of decision-relevant information has a large effect on the content of a group discussion, depending on the provision of unshared information (Larson, Foster-Fishman, & Keys, 1994).

Before a group discussion, relevant information could either be shared or unshared with the group (Stasser & Titus, 1985, 1987). Typically, more shared information versus unshared information is provided during a group discussion, which is a waste of a group's resources (time) (Engel & Kuzel, 1992; Stasser, 1991; Stasser & Stewart, 1992; Stasser et al., 1989; Stasser & Titus, 1985, 1987; Stasser, Vaughan, & Stewart, 2000; Stewart & Stasser, 1993; Stewart, Wittenbaum, & Stasser, 1992). The discussion of unshared information would add to the group's collective memory (Forsyth, 2014), offering the group the ability to create new discussion directions, solutions, or preferences, making better use of a group's time (De Dreu, Nijstad, & van Knippenberg, 2008).

The processing objectives for a group represents how a group will treat information (Bettenhausen & Murnighan, 1991; Festinger, 1950, 1954; Sherif, 1935). If a group's membership does not have common processing objectives, the information presented will receive differing treatment approaches (Levine & Resnick, 1993; Paese, Bieser, & Tubbs, 1993; Tindale, Sheffey, & Scott, 1993). Hinsz et al. (1997) noted that within this framework, a group that holds common processing objectives would be more efficient in their application of an information-processing model. A group's processing objectives can vary from task instructions, task content, member perspectives, existing group roles, and norms, depending on the type of task a group is required to complete (Kaplan & Miller, 1987; Thibaut & Strickland, 1956).

Processing objectives are influenced by group relations (Kaplan, Schaefer, & Zinkiewicz, 1994), where a group can place a need for greater social acceptance, approval, or public compliance (normative influence) rather than task centred processing influence (informational influence) (Hogg & Abrams, 1988).

Informational influence is applied when a group is facing an intellectual task (1987). When a group is facing an intellectual task and applies informational influence, the

perception held is that expert or informational power is held by a member or subgroup (Asch, 1952; Deutsch & Gerard, 1955; H. Kelley, 1952). For members to gain access to these sources of power, they must comply with intellectual task processing objectives (Hinsz et al., 1997).

When a group has a task that requires a judgment to be made, normative influence will be applied (Kaplan & Miller, 1987). Members that are swayed to assist with group goal attainment through the application of normative influence are typically experiencing the application of coercive power or *group locomotion* (Festinger, Schachter, & Back, 1963) and supported by the referent power held by the group (Hogg & Turner, 1987). The presence of referent power causes increased member conformity, due to a members' need to be a part of a reference group (Raven & Kruglanski, 1970).

The roles held by the members within a group influence a group's processing objectives due to the relationship members create between their role and the level of shared and unshared information they provide to the group (Levine & Resnick, 1993; Stasser, Stewart, & Wittenbaum, 1995). When a group interacts with more shared versus unshared information (J. Kelley & Karau, 1999), they will give shared information more validity than given to unshared information because the group can confirm shared information (Larson et al., 1994; Stasser & Stewart, 1992). However, if a member holds an expert role and then present unshared information, that information will be accepted by the group as valid solely because of the information source (Stewart & Stasser, 1995).

For members to process information, they must attend to the information. A group's ability to attend to information is determined by three different aspects of attention: drawing member attention, effects of shared and unshared information, and the effect of a group's interactions with its contextualised environment (Hinsz et al., 1997, p. 46). Attending to information can either increase or decrease due to the effect of deindividuation, the loss of self-awareness when in a group context (Deiner, 1980; Prentice-Dunn & Rogers, 1989). Increased attention is linked to a group that places less value on self and more value on attending to task information (Fiske & Taylor, 2008).

Deindividuation leads to decreased attention when it is linked to members not following norms but attending more to self (Fiske & Taylor, 2008). Group contexts have an effect on attention when related the level of interest it has in a situation, task, self, or group (Prentice-Dunn & Rogers, 1989). Reicher and Levine (1994a, 1994b) found that through the social identity perspective, members attend more to in-groups versus out-groups. Further, it was found that members will process information differently depending on if it originates from either an in-group or an out-group.

Members will demonstrate a differing level of attention to shared and unshared information (Stasser, 1992; Stasser & Titus, 2006; Stasser et al., 2000). It can be argued that if one member has prior knowledge of a piece of unshared information and shares it, the group would attend to this information. The process of sharing information reflects Steiner's (1972) disjunctive task, which is based on this same assumption of a group attending to unshared task information. However in work by Stasser et al. (2000), at least two members must have a knowledge of a piece of unshared information for a group to attend to that information. Unshared information that is held by only one member may remain unshared or, if shared, will be viewed only as a member's opinion.

Once information has been attended to, it requires encoding, which is the interpretation and structuring of information by members (Barber, Rajaram, & Aron, 2010). The task for the group is to create a useful representation of its members' interpretations and structure of information before encoding (Wilson & Canter, 1993). Three different conditions influence a group's encoding process: encoding complexity (Doise, 1969), shared mental model (Hastie & Pennington, 1991; Insko & Schopler, 1987; Levine & Resnick, 1993), and the information-processing system used (Hinsz et al., 1997).

Members' encode information into their individual mental models to optimise their task proficiency (Howard, 1995). However, differences between the mental models held by members can create conflict and group ineffectiveness (Bettenhausen & Murnighan, 1991; Kellermanns, Floyd, Pearson, & Spencer, 2008). Research has shown that when members have a shared mental model or shared knowledge, they

think along similar lines, share common perspectives, have uninhibited communication, and coordinate their efforts more efficiently, creating a more efficient group decision-making process (Kellermanns et al., 2008).

The reliance upon shared mental models can have negative consequences when the diversity of member knowledge is overlooked and not applied to group decision-making, leading to less than optimal decisions (Klimoski & Mohammed, 1994). A group that is primarily composed of members who hold a common mental model would approach issues with a single-minded view of subjects (Cannon-Bowers, Salas, & Converse, 1993) despite facing complex problems (Bantel & Jackson, 1989). A single-minded approach to problem-solving creates a myopic view of decision-making in the presence of complex issues, which underpins the presence of groupthink (Janis, 1982) and a weak group decision-making process. If the group has a great deal of dissimilarity between member mental models, conflict can occur, as can heightened levels of emotional conflict, resulting in decreased group performance (Jehn, 1995, 1997b).

The retrieval of information from group memory can correct errors caused by memory storage problems (Hinsz, 1990). The correction of these errors occurs by comparing how each member recalls a piece of information and the miss-match held by the majority is corrected (Hinsz, 1990). Recall assists groups who seek consensus and increased group confidence in recall accuracy. The use of transactive recall requires locating the encoding tag attached to a piece of information and does not require locating the member that holds the information (Wegner, 1986). What is needed is finding a member that knows where the information is stored, and once the initial direction is found, it will lead to the recall of the desired information.

When a group is processing information, they can fall into the *base-rate fallacy*, where a group ignores base-rate information (actual probabilities) for separate and distinct information to process (Kahneman & Tversky, 1973). A group that applies the base-rate fallacy will rank or weigh information based upon a perceived degree of relevance (Bar-Hillel, 1980). A group will tend to neglect base-rate information and use predictive information (Argote, Devadas, & Melone, 1990), leading to an

ineffective group decision-making process (Nagao, Tindale, & Hinsz, 1985; Tindale, 1989).

The nature of a group task provides insight into how information-processing and biases differ for individual and group decision-making (Hinsz, Tindale, & Nagao, 2008, p. 117). If a group's membership had a shared understanding of a task, the application of individual member bias would affect the group's performance level by skewing information-processing towards or away from that bias (Tindale, Smith, Thomas, Filkins, & Sheffey, 1996). Tindale et al. (1996) found that groups are drawn to tasks that are in line with their shared background knowledge (task representation) held by the majority of the group. The expectation of working together can lead to a form of 'social loafing' called cognitive loafing when a group is facing a problem-solving task (Laughlin, 1980; Laughlin & Ellis, 1986). Cognitive loafing creates a situation where less attention is paid to task information.

Within a group, it is common to find a subgroup(s) that occupies a minority position and holds unique perspectives in comparison to the group's majority. A majority-minority relationship can have an effect on how a group processes information (Mullen, 1991). When a group's majority extends its influence onto the group, more convergent thinking results (Nemeth, 1986). Increased divergent thinking occurs when a group's minority influence on information-processing effects group interplay (C. Smith, Tindale, & Dugoni, 1996). Members who took a defensive position against a minority influence used a cognitive strategy of presenting complex arguments to support their position (Gruenfeld, 2006). When members did not see the need to take a defensive position, they were open to discussing the pros and cons of alternate positions (Hinsz et al., 1997).

Once information is processed, a response is generated that reflects the group's position on an issue (Hinsz et al., 1997). A group's response is based on task type, information processes applied, the size of the response required, and the reconciliation of divergent thinking (Hinsz et al., 1997). Task type and related response have a one-to-one relationship regardless of the type of task (e.g. recall, decision-making, problem-solving) (Laughlin, 1980). A group will respond to a recall task by providing a series of information tags in a search to recall a piece of

information. A decision-making task (judgemental task) will require a selection from some alternative solutions, where the correct response is a product of consensus (Kameda, Tindale, & Davis, 2003). A problem-solving task is the creation of possible alternative solutions aimed at generating a correct response (Laughlin, 1980; Laughlin & Ellis, 1986; Laughlin & Shupe, 1996).

A group response is also affected by members' frames of reference (Kahneman, 2003) and their affective state of mind (Heine, Lehman, Peng, & Greenholtz, 2002). When differing reference points are blocking a group response, interaction is seen as being key to reconcile those differing opinions and generating a response (Kahneman, 2003; Kameda & Davis, 1990). The reconciliation of differing opinions occurs through the negotiation of those differences (Upshaw, 1969; Wyer & Srull, 1986). Intragroup negotiation is "the aggregation of individual preferences into group preferences" (Bonner, Okhuysen, & Sondak, 2011, p. 246). A negotiation is an attempt by members or sub-groups to attain required resources to support a response (Bazerman & Neale, 1992; Walton & McKersie, 1965). The negotiation or judgment is not on which opinion is right or wrong, but which choice is the best for the group (Bonner et al., 2011).

Feedback is a critical component of the information-processing model affecting both individual (Carver & Scheier, 1981; Kanfer & Ackerman, 1989; Naylor, Pritchard, & Ilgen, 1980) and group performance (Barr & Conlon, 1994; Nadler, 1979; Peterson & Behfar, 2003; Robinson & Weldon, 1993; Tindale, 1989; Tindale, Kulik, & Scott, 1991). Feedback in this instance is the information a group or individual member receives in response to their performance of a task (Hattie & Timperley, 2007).

The application of individual feedback has a profound effect on the directional relationship between process and outcome and a determining effect on performance (March & Sutton, 1997). With the emergence of a parallel research stream, this relationship had come into question when the effect of an outcome on a process was studied (Staw, 1975). When a group was successful, they anticipated future success and subsequently displayed a higher level of group performance. The opposite reaction occurred when a group was unsuccessful. The lack of success was taken further when studies confirmed that group performance was more affected

by negative versus positive feedback (Guzzo, Wagner, Maguire, Herr, & Hawley, 1986). It was also revealed that a group's recall was affected by the feedback received related to the information recalled.

Within a group, the effect of performance feedback on future processes and performances is dependent on how a group responds to negative feedback (Peterson & Behfar, 2003). A group can respond to negative feedback by approaching the involved issues with alternatives and unique problem-solving methods. The opposite response to negative feedback is to view it as a threat that will cause the group to incur a cost, a response similar to the threat-rigidity effect (Staw et al., 1981). In this situation, a group will respond by offering a limited level of information that is tightly controlled and is less varied or less flexible (Staw et al., 1981).

A group restricts information by narrowing the level of attention given causing a reduction in the encoding and storage of information. The group can also place a restriction and control over which members will process information. Once these changes are in place, the overall information-processing system will become less flexible and more intolerant to change. The study of information-processing behaviours provides insight into the decision-making processes employed by a group, which ultimately has an effect on members meeting their needs and group goal attainment (Hinsz et al., 1997). Traditionally, information-processing has been studied through the lens of social psychology, where the role of a group's contextualised environment is restricted to the environment that exists internally to the group. For a researcher to gain an understanding of a group's information-processing behaviours, they would have to be informed of the behavioural adaptations a group makes to the changes from within its contextualised environment that occur over time.

Group Viability

Group viability is a dynamic that represents the state of productive continuation that is measured through the multiple linkages between group viability and group constructs, e.g. satisfaction, effectiveness, and cohesion (Mathieu, Maynard, Rapp, & Gilson, 2008). The vast number of element patterns has made understanding and

measurement of these relationships tough, if not impossible (Bell & Marentette, 2011). Balkundi and Harrison (2006) viewed group viability as the level of member satisfaction received through membership.

Tekleab, Quigley, and Tesluk (2009) defined group viability as the long-term existence of a group with a stable membership. These are, but a few of the relationships spawned to explain group viability, making its definition lack structure, and providing an ill-defined picture of what group viability is and how it can be assessed. What is apparent is that the numerous definitions of group viability include constructs that are based on the actions of individual members, e.g. group stratification and group performance (Mathieu et al., 2008), leaving the definition of group viability open to discussion (Bell & Marentette, 2011).

In an attempt to provide a definition of group viability, Bell and Marentette (2011) looked at the origins of what group viability was to represent. The dictionary definition of viability, three hypothesised properties of the dynamic of viability is outlined: self-sustaining, the opportunity for growth, and a chance to be successful. The definition of viability coincides with the view of organisational behaviour concepts of organisational sustainability (Bansal, 2002; Kono & Antonucci, 2006), growth, and decline (Boeker, 1997; Whetten, 1987). Further, when the three constructs of viability are applied to the current dynamic contexts of present-day groups (Kozlowski et al., 2009), the sustained lifespan of groups (Devine, Clayton, Philips, Dunford, & Melner, 1999; Thompson, 2004), and frequent membership turnover (U.S. Department of Commerce Bureau of the Census & U.S. Department of Labor Bureau of Labor Statistics, 2006; U.S. Department of Labor, 2014), group viability becomes a group-based dynamic and not an individual member-based construct (Bell & Marentette, 2011). The view that group viability is a group dynamic and therefore a sociological construct restricts the understanding of group viability to interactions between a group and other social entities external to the group (e.g. communities and societies) that occur at one point in time.

Groups of today exist within a contextualised environment that experiences a continuous state of change, requiring a group to adapt accordingly (Burke, Stagl, Salas, Pierce, & Kendall, 2006). Those adaptations can be the need to complete

numerous unstructured tasks that demand a group assimilate multiple conflicting sources of information towards the creation and implementation of unique solutions (Edmondson, Roberto, & Watkins, 2003). A group's communication channels may fail or change during the completion of a task, demanding a new communication strategy (LePine, 2005). Task demands may require a group to change its work structure from addressing tasks as a whole to a division of labour where members are assigned specific task types to complete (Moon et al., 2004). For a group to maintain its viability and grow, it must be able to adapt to changing demands or fail to adapt, leading to poor group performance and a lack of sustainability. A question is raised: 'What is the role of a group's initial and future contextualised environment on its behaviours?'

The need for a group to quickly adapt to changing demands has led to an increase in self-managed groups over conventional-style groups within today's organisations (Humphrey, Hollenbeck, Meyer, & Ilgen, 2007; Manz & Sims, 1987; Spear, 2004). A conventional group is under daily management control, with assigned functional duties and a reward system linked to individual effort and group tenure (Yeatts & Hyten, 1998). A self-managed group has decision-making power over group goal selection, typically held by management (Metlay, Kaplan, & Rogers, 1994; Salas, Goodwin, & Burke, 2009). The group determines its output level, what it wants to create, and by which means it will create that output (S. Cohen, Ledford, & Spreitzer, 1996; Dunphy & Bryant, 1996; Manz & Sims, 1987).

Groups found within today's organisations exist in a dynamic organisational context and have variable life spans while incurring changes in both membership and group goals (Molleman, 2000; Thompson, 2004). Groups are social entities that are independent decision makers that endure internal changes, where the focus is on a group, not its members. Group viability is a base group dynamic where an attempt to reduce group viability to the sum of individual characteristics does not apply (Bell & Marentette, 2011). Group viability is now defined as a group's "capacity for the sustainability and growth required for success in further performance episodes" (Bell & Marentette, 2011, p. 279).

A group's sustainability and growth are dynamics based on various group behaviours, one being member commitment, which is the level of interaction between a group and its members. An increased level of interaction is an increase in the commitment level provided by both the group and member(s) towards the attainment of group goals and fulfilling member(s) needs (Moreland & Levine, 2004). A group or member demonstrates these behaviours when action is taken to assist either party with the attainment of groups goals or meeting member needs (Arrow et al., 2000; Moreland & Levine, 1982). The group and its members evaluate the ongoing level of 'rewardingness' that they can offer each other towards the attainment of each party's goals and needs (Moreland & Levine, 2004, p. 481). When a group is committed to a member, they will readily support the member's needs and values (Levine, Moreland, & Ryan, 1998). The same happens when a member is committed to a group and readily supports the group in meeting goals and is keen to continue their membership (Moreland & Levine, 2004).

If a member is not meeting group expectations, they can either act to change the member's behaviour or reduce a member's role within the group (Kets de Vries, 2005; Moreland & Levine, 1982). A member can view the level of commitment offered by a group as not meeting their expectations and can either decrease their commitment to the group or take actions to increase the group's commitment they receive (Moreland & Levine, 1982). When a member(s) is viewed as being valuable to a group, that value will be converted into a heightened level of status and power for that member (Baron et al., 1994; Moreland & Levine, 1982; Moreland & Levine, 2004). A member(s) that holds a high-status position they can expect more commitment from the group than they provide to the group (Arrow et al., 2000).

When a group is engaged in completing a task, they will employ a level of effort that will allow them to be successful or productive. Group productivity is a dynamic defined by Steiner's (1972) law of group productivity, which measures group productivity through three interdependent factors: task demands, available resources, and group dynamics. A task is a set of demands that must be met to enable group goal attainment. Steiner's definition of a task focuses not only on the

result but also on the “rules and constraints that govern the manner in which” an outcome attained (Steiner, 1972, p. 15).

Steiner (1972) categorises tasks into divisible versus unitary, maximising versus optimising, disjunctive, conjunctive, additive, and discretionary (pp. 15-18). Divisible and unitary tasks are component tasks that reflect the nature of the task as being either divisible into sub-components or not being divisible. A divisible task can be subdivided into smaller components and addressed by numerous members (Steiner, 1972). A task that cannot be subdivided will be completed by one or more members working congruently; this is called a unitary task (Steiner, 1972). The use of either maximising or optimising task reveals what process a group wants to apply to attain the desired outcome. A group will apply a maximising task if it values outcomes that reflect their desire for quantity (Steiner, 1972). A group that desires the production of high-quality outcomes will measure the quality of their outcomes through the use of an external standard (Steiner, 1972).

Steiner’s (1972) law of group productivity places emphasis on a group’s available resources, or the intragroup dynamics used to apply those resources. Resources are defined as “all the relevant: knowledge, abilities, skills, or tools possessed by the individual(s) who is attempting to perform a task” (Steiner, 1972, p. 18). The productivity effect of Steiner’s six task strategies is best viewed as a continuum that ranges from a positive to negative effect. The additive strategy offers the greatest improvement in group productivity, and the conjunctive unitary task strategy offers the lowest level of productivity that is equal to that displayed by the weakest member.

Steiner (1972) summarises his law of group productivity using a mathematical formula, where the actual productivity displayed by a group is a product of the group’s potential productivity, less the productivity losses that are due to poor group dynamics (Steiner, 1972, p. 9). Optimal group productivity becomes an unattainable state that discounts inherent benefits of group membership. Forsyth (2010) presents a more optimistic model of group productivity that includes the potential benefits of membership from the generation of new solutions, increased insights, or an increased ability to problem solve, “Actual productivity = Potential

productivity - Losses due to faulty processes + Gains due to good processes” (Forsyth, 2010, p. 305).

Group productivity or actual productivity is now defined by a group’s potential productivity less the difference between productivity losses due to faulty group dynamics and gains from effective group dynamics. Potential productivity occurs when each of the three elements within a coordination network can individually be optimised and work in concert to effectively and efficiently complete a group task (Steiner, 1972). Member needs would have to be met while providing the required “skills, values, attitudes, personalities and cognitive styles” that would facilitate group goal attainment or optimal group productivity (McGrath et al., 2000, p. 98). The resources available to the group, in the form of soft and hard tools, would have to be available when needed or on demand. A group must have the dynamics and physical resources that would facilitate function towards the attainment of optimal group productivity (McGrath et al., 2000, p. 98).

Steiner’s (1972) view of productivity was incorporated by Arrow et al. (2000), with their definition of group productivity: “A group’s ability to be productive entails the fit of the three elements: the component networks found within the coordination networks and the effective application of a coordination network” (Arrow et al., 2000, p. 138). The component networks are a group’s systems that reflect the member-to-member ties, individual to group ties, or group to its contextualised environment ties (N. Katz, Lazer, Arrow, & Contractor, 2004, p. 312). How these elements are coordinated and applied will affect the group’s ability to meet task demands that require either a high quantity or quality outcome.

A group that is bound to produce a high quantity of task outcomes must create and apply coordination networks that are efficient and effective to meet this demand, a group must incorporate a task’s contextual environment into coordination network development. A task’s contextual environment can either be contusive or resistant to task completion. Resistive elements come in the form of time pressure or high outcome expectations, placing group goal attainment in jeopardy (Ancona & Chung, 1996; McGrath & Kelly, 1986, 1992; Moore-Ede, Sulzman, & Fuller, 1982).

When a group task demands a quality outcome, the determining factors are their experience with that type of task and their ability to effectively complete the task (Littlepage, Robison, & Reddington, 1997). When a group is given a task they have successfully completed in the past with a required coordination network currently in place; it can produce a high-quality task outcome (Littlepage et al., 1997). The standard used to determine if an outcome is of high quality is found external to a group and is under the influence of the contextualised environment of that standard (Ancona & Chung, 1996; McGrath & Kelly, 1986; Moore-Ede et al., 1982). The production of a quality task outcome becomes variable and dependent upon the relationships between a group's component networks and their contextualised environment. In the literature, quality and quantity are two end points on a continuum for task outcomes (Karau & Kelly, 1992; J. Kelly, Jackson, & Hutson-Comeaux, 1997), where the decision processes used by a group to select which point along the continuum they value most is unknown (Podsakoff, MacKenzie, & Ahearne, 1997). Further, under what conditions a group can improve quantity or quality without compromising either productivity measure is also unknown (Brown & Miller, 2000).

Group viability has been defined as a group-level construct that is not a product of the sum of member characteristics that are under the influence of a group's contextualised environment. Predominately, group viability has been studied through the lens of sociology, where the group was the base unit of investigation (Bell & Marentette, 2011; Mathieu et al., 2008). I argue that intragroup interactions directly affect the main definitive points for group viability, sustainability, growth, and performance (Bell & Marentette, 2011). The question can be raised: 'What is the effect of a group's interplay with its contextualised environment on its state of viability?' The consideration of this question requires group viability to be studied not only through the lens of sociology but in a more holistic manner; that accounts for change over time.

Member Needs

In an effort for members to meet their needs through membership, they have to synchronise the attainment of their individual needs while assisting in meeting

group goals (McGrath, 1991). A group is successful with this synchronisation effort when members modify or expand their involvement in group task completion (Hackman & Morris, 1975). The member actions are reflective of “elements of cooperation, competition, convergence and conflict” that are selected, combined and rationally ordered (Arrow et al., 2000, p. 97). Members also meet their needs through interactions with their powerful influence (Hackman & Morris, 1975), which can occur in isolation or through negotiation with a coalition or the group (McGrath, 1991). A member negotiates what level of assistance they will receive towards meeting their needs through an exchange process involving their level of involvement in the completion of a group task.

The member exchange process is a part of the group socialisation model proposed by Levine and Moreland (1994). Within this model, there is an ongoing process of member/group exchanges that start when a member first joins a group and ends once they leave the group (Levine & Moreland, 1994). The perceived value that the member and the group can offer one another is the currency used in this exchange. The higher the perceived value that a group attaches to a member, the higher the commitment the group gives that member. From the members’ perspectives, the group can provide a perceived level of rewardingness to assist them in meeting their needs (Levine & Moreland, 1994, p. 308). The higher the level of perceived rewardingness by the member, the higher their level of commitment to the group. The standard of engagement provided by either party will be higher if three temporal relationship states are in place:

1. Historically they have had positive relationships.
2. Currently, they perceive their relationship as being more positive than an alternative relationship.
3. The future relationship is expected to be positive.

(Levine, Moreland, & Choi, 2001, p. 308)

The level of commitment provided by each party determines the member’s status within the group (Levine & Moreland, 1994). The levels of commitment vary over time, creating a variation in member status and negotiation leverage for both parties (Levine & Moreland, 1994).

Each member will have varying expectations related to meeting their needs through group membership (Arrow et al., 2000). A member will expect that their needs for affiliation, achievement, power, and resource allocation will be met through their membership (Levine & Moreland, 1990, 1994; Levine et al., 2001; Moreland & Levine, 2002). From the perspective of the group, the attainment of goals through the completion of group tasks is the focus. However, the achievement of group goals depends on whether the group is satisfying individual member needs. If a group fails to accomplish this, they will be unable to function effectively. Arrow et al. (2000) stated that the coordination and synchronisation of the interests of the group and the individual member occur through five individual interactions: conflict, consensus, synchronising member activity, information-processing, and problem-solving (Arrow et al., 2000, pp. 104-107).

The study of the member needs dynamic has predominately been the domain of social psychology, where the effects of intergroup, organisational, and environmental context interplay has been minimised (Levine et al., 2001). However, as noted previously, meeting member needs is reliant upon the group coordinating and synchronising its interests with those of its members (Arrow et al., 2000). As a group interacts with its contextualised environment, it does not do so in a vacuum (Burke et al., 2006); interactions are not controlled nor do they occur in isolation, which raises the question, 'What role does the interplay between a group and its contextualised environment play towards the meeting of member needs?' The study of member needs requires the exploration of not only what occurs at the group level but what occurs in the intragroup, organisational, and environmental contexts (Cooksey, 2001).

Group Goal Attainment

A group to maintains their dynamic of viability, by synchronising the meeting of individual members' needs with the achievement of group goals (Moreland & Levine, 1982). A group has two dynamics at play during the achievement of group goals. One dynamic is composed of members meeting their needs and the second dynamic is the achievement of group goals and sub-goals. Further, a group interacts with its contextualised environment, which is composed of multiple social entities,

each with unique goals that may or may not align with a group's goals. Ensuring that goal needs of a group's contextualised environment are satisfied requires that a group enact complex goal attainment processes (D. Katz & Kahn, 1966; Tschan & Von Cranach, 1996), processes that require all elements within a group's contextualised environment have a common understanding of a group's goals (D. Katz & Kahn, 1966).

To attain this level of understanding requires those elements within a group's contextualised environment know what task processes (behaviours) a group will apply towards goal attainment. Members will be expected to have process routines in place for task completion, assess contextual influences, and understand their role towards task completion (Gersick & Hackman, 1990). The task processing structure requires adequate communication through member interplay to regulate group function (von Cranach et al., 1986). With these routines in place, a group will act as a single entity and not as a collection of differing individual perspectives, limiting the level of confusion and conflict (Hackman, 1990a; Hackman & Morris, 1975) while improving group performance (Erffmeyer & Lane, 1984; Firestien, 1990; Ganster, Williams, & Poppler, 1991).

The creation of task process procedures utilises a hierarchical and sequential planning method that uses goals and sub-goals similar to the theories of action regulation (Hacker, 1985, 2003; A. Muller, Herbig, & Petrovic, 2009). Action regulation theories categorise behaviours associated with the attainment of goals and sub-goals in the same manner as behaviours are used to represent actions (von Cranach et al., 1986). Action regulation theory views an action as a goal-directed behaviour and tasks as goals to be attained (Frese & Zapf, 1994; Hacker, 2003; A. Muller et al., 2009). Therefore, the behaviours demonstrated by a group are goal-directed behaviours that are controlled by a specific regulatory process.

When organising a task by its hierarchy of goals and sub-goals, attention must be paid to the completion of necessary sub-goals and sub-sub-goals before progressing towards overall goal attainment. Sub-goals play a major role in goal completion and, if missed, overall goal attainment is delayed or will not occur. The regulatory processes applied differ in accordance to each level within a goal hierarchy. Abstract

or general goals require close attention, while lower-level goals can become routine and automatically performed (Shiffrin & Schneider, 1977). Other regulatory systems involve ranking goals from 'intellectual' to 'medium' and the lower level 'sensorimotor' (Hacker, 1985, 2003).

The intellectual level goals require extensive sampling of the contextual environment and task orientation. The medium level goals allow for a degree of flexibility to allow these goals the ability to adapt to changing conditions. The sensorimotor level goals are met automatically and require less attention than the previous two regulatory levels. The regulatory processes found within all action theories have a common variation in speed of operation (von Cranach, 1982). Higher level hierarchical goals are slow to create and implement, average level goals are quicker to create and implement, and lower level goals are quick to create and implement (Tschan & Von Cranach, 1996).

The sequential characteristics of a task demands all sub-goals be completed in a set order to facilitate goal attainment (Hacker, 2003). The ordering process requires a group first to rank the requirements of a task by the degree of cognitive demand, creating a hierarchy of goals and sub-goals. Next, a group will sequence the order in which those goals and sub-goals must be performed to complete the desired group task successfully. The sequence employed is the completion of sub-goals that have a high level of cognitive demand first followed by those sub-goals that place less of a cognitive demand on a group (Tschan & Von Cranach, 1996).

At this point, a cyclic process has begun, starting with task characteristics being defined by their hierarchical and sequential demands. Next, the creation of goals and sub-goals, the implementation of those goals, and finally the level of goal attainment is assessed. What a group then requires is the ability to learn from this cyclic process and allow for the adjustment of all, a few, or just one of the components within this process to enhance its effectiveness and efficiency (Frese & Zapf, 1994; Hacker, 2003). The cyclic regulation process allows a group to define task hierarchies and sequences better, and recognise and categorise errors (Frese & Zapf, 1994; Hacker, 2003). The recognition and categorised regulation of obstacles

(Semmer & Frese, 1985) make a group function more effectively and efficiently while maintaining its viability.

Group goal attainment requires an understanding of a groups' goal attainment processes that are informed by the task completion processes driven by its members (Hacker, 1985, 2003; A. Muller et al., 2009). Processes that account for contextual influences and an understanding of their role is task completion (Gersick & Hackman, 1990) that is facilitated by adequate communication through member interaction, which regulates group function (von Cranach et al., 1986). Group goal attainment behaviours are not a collection of differing individual perspectives but the coordination of those perspectives to improve group goal attainment and performance (Erffmeyer & Lane, 1984; Firestien, 1990; Ganster et al., 1991).

Group goal attainment behaviour is under the influence of interactions that occur both within and across a group's contextualised environment, over time. The question, 'What is the role of the interplay between a group and contextualised environment and the attainment of group goals?', needs to be raised. The study of this behaviour requires going beyond the traditional social psychology perspective (Hacker, 1985, 2003; A. Muller et al., 2009) to include all the contexts found within a group's contextualised environment (Cooksey, 2001).

Group Structure

A group's structure is a dynamic composed of relationships that facilitate its function through roles, hierarchy, communication links, social networks, status networks, and attraction networks. A group's structure emerges and develops over time and has historically been viewed to follow a fixed linear sequence of development and change (Bales, 1970; Bennis & Sheppard, 1956; Tuckman & Jensen, 1977). The historical view focused on internal causes of change and assumed stability in group membership and in its contextualised environment. Changes related to group membership fluctuation or changes within its contextualised environment are marginalised as external change agents that disrupt a group's optimal development pattern (Hill & Gruner, 1973).

There are researchers that viewed group development as a nonlinear process, where change is a product of internal or external system shocks (Gersick, 1991;

McGrath, 1991; Poole & Roth, 1989a, 1989b). Change caused by these system shocks can be temporary or permanent, requiring a group to alter their developmental path through adaptation of their standing structures over time, where a group is a dynamic multipath construct that is not time dependent and is void of a hierarchal progression (Cissna, 1984; McCollom, 1995; McGrath & O'Connor, 1996).

The dynamical systems perspective views change and continuity as a product of a systems attraction to achieving an ideal equilibrium state when it encounters change (F. Abraham, Abraham, & Shaw, 1990; Baron et al., 1994). Ideal equilibrium or attractor has formed out of behaviours that a group has self-organised over time and demonstrates a desire to return to when encountering change. When a group is unable to resist the forces of change a bifurcation occurs and a new equilibrium or attractor is assumed by a group (Baron et al., 1994; Lichtenstein, 2000).

Within the literature, there are multiple theories of group development; Hill and Gruner (1973) identified over 100 theories. Out of this morass of theories, Arrow et al. (2005) presented five models of change and continuity in group structure that are in line with dynamical systems theory. The five models were created based upon different aspects of group development and group organisation (Allmendinger & Hackman, 1996; McCollom, 1995; Mennecke et al., 1992; Miller & Friesen, 1980; Wanous et al., 1984). The five models include concepts from complexity (G. Cowan, Pines, & Meltzer, 1994) and pattern identification through the lens of dynamical systems theory (Goerner & Langhorne, 1994).

The robust equilibrium model views change as evolutionary, where a group's initial self-organisation and dynamic development during inception provide a group with a stable structure (Braam & van den Besselaar, 2010; Gersick & Hackman, 1990), a structure that allows a group to dampen the changes demanded by internal or external system shocks by limiting behavioural adaptations, allowing the maintenance of their 'robust' equilibrium state (Arrow, 1997, p. 76) (see Table 2.2).

Under the influence of an attractor, a group's structures will fluctuate as they address internal system shocks through a self-regulating system (Arrow, 1997). If a group experiences a substantial external system shock that makes the maintenance

of its equilibrium state untenable due to a lack of capacity found within its structure, a shift to a new equilibrium state can occur (i.e., bifurcation) (Arrow, 1997; Braam & van den Besselaar, 2010; O'Reilly & Caldwell, 1985).

Table 2.2. Characteristics of Change Five Models of Group Development

Model	Source of change	Nature of change	Source of continuity
Robust Equilibrium	Internal forces	Initial Fluctuations	Internal forces
Sequential Stage	Internal forces	Gradual, Ongoing	External disruption
Punctuated Equilibrium	Internal forces External cues	Radical, Abrupt	Internal forces
Repeating Cycle	Internal forces External cues	Simple Cycles	Internal forces
Adaptive Response	External cues	Immediate or Delayed Response	External forces

Adapted from Arrow et al. (2005, pp. 324-330)

The lens of the robust equilibrium model views the inception of a group is the time when members develop expectations of each other in the group context (McGrath, Berdahl, & Arrow, 1996). These initial judgements are based on expectation state theory (J. Berger, Conner, & Fisek, 1974) and social role theory (Eagly & Karau, 1991), where members use the status characteristics of gender, race, or age to develop the group structure. The group structure is adjusted as the members interact and gain an increased understanding of the abilities found within the group and assume formal or informal group roles (Bray & Brawley, 2002; Eagle, 1981; Mabry & Barnes, 1980).

When applying, expectation state theory preconceptions can be reinforced and form into stereotypes (Ridgeway, 1991). The creation of stereotypes can lead to misaligned interaction patterns, resulting in poorly developed group roles, group hierarchy, and untapped member skills. The robust equilibrium model has a group going through an initial self-organisation phase, where the structure created induces stable interaction patterns (Carley, 1991).

Sequential stage models identify with a linear sequence of group development reflected by a group life cycle (Arrow et al., 2005). The progress is driven by the internal group forces void of the requirement of external cues to shift along the linear developmental process. A group will experience a slow and rhythmic

adaptation process, similar to the adaptation that occurs in the social entertainment model (McGrath & Kelly, 1986). The presence of external cues can cause a group's developmental process to stop, stunting a group's development. Although the main change agent is a group's life cycle, it has been noted that when members hold opposing views on an issue facing a group, the outcome of the negotiation of those views can act as a change agent (dialectical motor) (Bennis & Sheppard, 1956).

At a group's inception, they enter this model at the initial stage or stage one, where a group deals with the issues of inclusion and dependency (Bion, 1961). A group will strive to find common ground on issues that face the group while dealing with the anxiety of the members developing new relationships (Slater, 1966; Stock & Thelen, 1958). Stage 2 is where issues of counter-dependency, conflict, power, competition, and authority are negotiated (Braaten, 1975; Mann, Gibbard, & Hartman, 1967). It has been suggested that the negotiation around authority and status at this stage is the prerequisite for an eventual improvement in group cohesion and cooperation (Tuckman & Jensen, 1977). The open discussion of group leadership issues can lead to increased group solidarity, providing an open forum for members to clarify their individual needs, leading to improved group stability (Theodorson, 1962).

As a group moves on to stage 3, with the development of trust between members (Lundgren, Knight, & Banet, 1978), members are more open to negotiating group goals, structure, and roles (Wheelan, 1990). The completion of this stage prepares a group for stage 4, the work stage, where a group is focused on task completion through the active exchange of ideas and feedback (Tuckman & Jensen, 1977). If a group is created to address a specific task, once this task is completed, they will enter stage 5, the termination stage. The termination stage will create disruption and group conflict (Mann et al., 1967), along with an equal measure of positive feelings regarding reflection on group membership (Lundgren et al., 1978).

Other stage theories allow for the stage sequence to be altered (Bennis & Sheppard, 1956; Mann et al., 1967), where the transition from stage 1 through to stage 4 does not occur smoothly. The effect of external or internal system shocks can cause group development to stop or to regress (Wheelan, 1994). Group development can skip stage 1 or 2 if most of the membership has worked previously together in a group

context. A high level of familiarity between members represents a continuity of group membership (Hill & Gruner, 1973).

Where a group identifies with a repeating cycle model, adaptation is a focal point in their group processes (Arrow et al., 2005). A group rejects the notion that they must follow a sequential adaptation process, driven by the recognition of internal adaptation cues, which are a product of a dialectical motor (Bion, 1961). A more complex version of this model explains a group's adaptation processes as a group seeks to address three questions:

1. Do I belong to this group or not?
2. Is this group engaged in completing this task or not?
3. Is this group effective in effectively negotiating multiple perspectives or not?

(K. Smith & Berg, 1987)

The cycle lengths are shorter than a group's life cycle and were initially viewed as a swing between completing a group task and focusing on meeting member needs as the method used to maintain group solidarity (Bales, 1950).

Within this model, a group's development stage is related to how a group perceives the membership of their out-groups as being diverse or similar and the level of social loafing it demonstrates (Worchel, Coutant-Sassic, & Grossman, 1992). Further, the development stage is demonstrated through the level of cooperation a group has with an in-group and their increased competition with an outgroup (Worchel, Coutant-Sassic, & Wong, 1993). As mentioned previously, the main driver for adaptation with this model is the group attending to internal adaptation cues.

The punctuated equilibrium model adaptation is sudden and drastic after prolonged periods of stability or evolutionary adaptation when a group experiences a change from within its contextualised environment (Gersick, 1988). Gersick (1988) found that when a group transitioned from a period of stability to an instance of drastic adaptation and returning to a period of stability, the level of group performance improved. The transition from stability to instability occurs when a group receives a task that it has no experience on how to organise and efficiently apply their skills to complete that task. A group will drastically adapt its behaviours to organise and efficiently apply their group resources to complete the new task. Other, punctuated

equilibrium models have longer periods of stability, where drastic adaptation is sudden, creating periods of discontinuous instability and reorganization. Although adaptation can be initiated by either internal or external cues, the periods of stability are generated by a group's internal processes. The punctuated equilibrium model is driven by a combination of evolutionary and goal-driven motors (Arrow, 2006; Hackman, 1990b).

The models that focus on responding to opportunities and constraints presented by a group's external contextualised environment are adaptive response models (Arrow, 2006). As a group responds to changes from within its external contextualised environment, it assesses the forces and incentives that are active and available (McCollom, 1995; McGrath, 1991). The patterns of adaptation demonstrated by a group are idiosyncratic, reliant upon whether its external contextualised environment is either stable or requires group adaptation.

The main driver of adaptation is the need for a group to attain goals through the application of any method that proves effective, known as the equifinality approach (Mathieu, Heffner, Goodwin, Cannon-Bowers, & Salas, 2005). McGrath (1991) proposed that a group will traditionally try to complete multiple tasks concurrently as they relate to task performance, member support and group well-being. The methods used to complete these tasks will be sequenced dependent upon the nature of the tasks and the availability of required resources. The concept of group structure has been predominately studied from a social psychology perspective through the focus on the interactions that occur within the group (Feldman, 1984; Gersick, 1988; Gersick & Hackman, 1990). The role of time has been the measurement of the time spent in a state of instability or stability as a group moves along a linear developmental path (Bales, 1970; Bennis & Sheppard, 1956; Tuckman & Jensen, 1977). I argue that to understand group structure requires a holistic insight into a group's interactions both within and across its contextualised environment that is continuously changing. To gain a holistic insight requires going beyond the traditional social psychology perspective and being more inclusive by incorporating all a group's contextualised environment, exploring the role played by each.

Cohesion. Group cohesion is a dynamic that measures a group's structural integrity and is based on the strength of the member-to-member network ties (Cartwright, 1968; Forsyth, 2014; Hogg, 1987; Lott & Lott, 1961, 1965). These ties are formed when there is an attraction that is based on the presence of complementary skills, knowledge, abilities, beliefs, and values exist (Cartwright, 1968). The level of cohesion is affected by a group's normative level of friendship, and the standard of social interplay permitted. If a group has norms that allow or encourage member interplay that is congenial, polite, social, and informal, there will be an increased level of group cohesion (Cartwright, 1968). Group cohesion is the product of the interaction patterns initially created when two or more group members socially interact during a group's inception to create a level of structural cohesion (Freeman, 2004; Scott, 2000). "A group is structurally cohesive to the extent that multiple independent relational paths among all pairs of members hold it together" (Moody & White, 2003, p. 107).

The definition of group cohesion has been modified to be more representative of the type of cohesion found within a naturalistic group (Cartwright, 1968; Forsyth, 2014; Hogg, 1987; Lott & Lott, 1961, 1965). Group cohesion is a composite of social, task, collective, emotional, and structural cohesion. Social cohesion is the attraction one or more members have to their fellow members and the group (Forsyth, 2014). Social cohesion is a composite of three types of attraction: intrapersonal, group, and social. The level of interpersonal attraction between members is the force that brings members together and creates a social bond between members (McPherson & Smith-Lovin, 2002). Group attraction is when a member has a stronger attraction to be a member of the group versus being with other members of the group (Carless & De Paola, 2000). Social attraction is defined by Hogg (1992) as a member's attraction to group membership that is based on their desire to attain the level of status conveyed by the membership.

Structural cohesion is a dynamic evidenced by the density and centralization of interaction patterns that exist between group members (Kowalski & Jenkins, 2015), which provides insight into the supra-individual status of triads over dyads (Georg Simmel & Wolff, 1950, p. 135). The argument here is the effect of one member

leaving has on a triad versus a dyad (T. M. Mills, 1958). A dyad is dependent on the presence of two members to be a viable social unit; the loss of one member and the social unit is lost. If a triad were to lose one member, they could continue to be a viable social unit. However, the strongest cohesive groups are those where the members are directly connected to one another in the form of cliques or coalitions (Moody & White, 2003).

Task cohesion is a dynamic evidenced by a group's ability to achieve a goal or objective through a coordinated effort (Carless & De Paola, 2000; MacCoun, Kier, & Belkin, 2006). A group that demonstrates a high level of task cohesion will have a strong sense of group motivation, with a strong drive to attain group goals while sacrificing individual needs (Zander, 1971). The level of commitment or 'collective efficacy' demonstrated is the shared belief that a group can divide a task into subtasks and then complete those tasks in an efficient and competent manner (Stajkovic, Lee, & Nyberg, 2009). Members must have the self-efficacy that can be applied in a coordinated fashion to create a collective performance (Bandura, 1997; Pescosolido, 2003). Guzzo, Yost, Campbell, and Shea (1993) identified a similar group behaviour called group potency, which is the shared belief that if a group coordinates available member's skills and abilities towards a collective action and executes that action, they will successfully complete group tasks.

Collective cohesion is a dynamic that reflects the shared belief by a group's majority that they are capable of coordinating their efforts and executing actions that will enable them to complete group tasks (Podsakoff, MacKenzie, Moorman, & Fetter, 1990; Waldman, Ramirez, House, & Puranam, 2001). When members display collective cohesion, they identify with their group through social identity theory (Ashforth & Mael, 1989; Kohut, Goldberg, & Stepansky, 1984), and members openly identify themselves with the group use of plural pronouns, e.g. "we got that grant" rather than "I got that grant" (Cialdini et al., 1976). A member will no longer assume responsibility for their accomplishments; ownership of these lays solely with the group.

Members will take the sense of belonging and enhanced attachment to the point where they no longer identify themselves as individuals but as members of a group

(Bollen & Hoyle, 1990; Henry, Arrow, & Carini, 1999; E. Smith, Seger, & Mackie, 2007). In rare cases, identity fusion theory occurs when a member merges their identity with their group's historical identity to form a single identity (Swann, Buhrmester, et al., 2014; Swann, Gomez, et al., 2014; Swann, Gómez, Huici, Morales, & Hixon, 2010). In these cases, the members will sacrifice their needs to ensure their group attains its goals. Members will no longer have an individual identity and will present themselves only from the perspective of being a group member.

Emotional cohesion is a dynamic that is demonstrated when a group collectively experiences shared intense emotional reactions with goal attainment (Durkheim, 1965). A group that has emotional cohesion will demonstrate “vitality, passion, vim and vigour” behaviours (Forsyth, 2014, p. 140). The presence of emotional cohesion creates the expectation that a group will assist fellow members, defend their organisation, offer constructive input, seek to improve their performance, and foster positive beliefs within their community (Barsade & Gibson, 2012; Spoor & Kelly, 2004)—positive emotions that can spontaneously emerge during group interaction, creating added group cohesion. As the level of member-to-member attraction increases, there will be an alignment of member behaviours that will facilitate members meeting their needs (Lawler, Thye, & Yoon, 2000, 2008; Lizardo, 2007).

The effect of affective relations on group interaction is the presence and variance between positive and negative emotions (Barsade & Gibson, 1998). Members that either expresses positive or negative emotions during a group's interactions will not only affect the structure of interplay but influence coordination network outcomes. Barsade (2002) displayed that groups that projected a positive mood (emotional contagion) garnered a greater level of member cooperation and displayed less group conflict during managerial negotiations and decision-making tasks (Barsade, 2002, p. 120).

Group cohesion is a composite composed of multiple cohesion types that affect group function and development (Forsyth, 2014; Hogg, 1987). Cohesion is the product of ties that are formed when an attraction exists that is based on the presence of complementary skills, knowledge, abilities, beliefs, and values (Cartwright, 1968). The level of social interplay within a group that is facilitated

through normative behaviour will affect the presence of cohesion (Cartwright, 1968). The greater the level of cohesion that a group can demonstrate, the greater their ability to attain group goals and meet member needs (Freeman, 2004; Scott, 2000). The outcome of increased group cohesion is a greater affiliation with the group and a loss of self, where members more readily identify with their group versus as a member of a group.

Status and power. The pattern of influence found within a group is based upon their status hierarchy, which relates to the level of power, influence and control over others that a member can obtain and apply (Forsyth, 2014). Members can signal their level of status through non-verbal communication, such as a firm handshake, intense face expression, non-committal posture, or look of distaste (C. Anderson, John, Keltner, & Kring, 2001; Chaplin, Phillips, Brown, Clanton, & Stein, 2000; J. Hall, Coats, & LeBeau, 2005). Members that speak directly to their audience, maintaining eye contact while clearly and concisely speaking, exude a high level of status (Fiske, 2010). A member will be conveyed a high level of status by openly displaying strong emotions versus a member who expresses sadness (Tiedens, Ellsworth, & Mesquita, 2000).

Members will also seek status through their verbal communications, by initiating discussions, assuming control of discussions, or shifting discussion outcomes to be aligned with their area of expertise, to confirm their status or raise their status (Godfrey, Jones, & Lord, 1986; Rudman, 1998; Wolodko, 2015). A member seeking discussion control will apply their extensive past knowledge of a topic or state what is the best approach to discuss a subject. A member of low status would indicate that they have a poor history with a topic or that they have difficulty understanding what is discussed (Bonito, DeCamp, Coffman, & Fleming, 2006; Bonito & Hollingshead, 1997; Schmid-Mast, 2002). A member that is seeking status will:

1. Direct member actions
2. Interrupt group discussions
3. Pass judgement on member statements
4. Summarise and reflect on group discussions

(C. Hall et al., 1997)

Within a group, there will be members that seek status and power for differing reasons, for instance, to control events that affect them personally (van Dijke & Poppe, 2007). While other members will seek power and status over the group and those external entities that come in contact with the group (Winter, 2010). There will be members who require power over every aspect of a group and its interplay to meet individual needs (Harms, Roberts, & Wood, 2007). Members who seek this type of power and status are members in senior positions in a group hierarchy and are more prone to the effects of power stress (Fodor & Wick, 2009; Gramer & Schön, 2015; McClelland & Boyatzis, 1982). Power stress is a state of physical and emotional exhaustion experienced by an individual who exercises power and influence over others while having a sense of responsibility for their actions (Boyatzis, McKee, & Synnestvedt, 2009).

The need for power is typically related to the presence of testosterone, which predicts aggression, assertiveness, and toughness characteristics that enable a member to assume a dominant position within the group (Rivers & Joseph, 2010). In groups that are stable and lack a defined role hierarchy, the need for dominance has muted the effect of testosterone (McIntyre, Li, Chapman, Lipson, & Ellison, 2011), where members seeking power use their political skills to forward their agenda. These members will spend a great deal of effort networking with influential individuals with the goal to build relationships that give them access to skills and resources that they consider of value in their quest for power (Ahearn, Ferris, Hochwarter, Douglas, & Ammeter, 2004; Ferris et al., 2005; Ferris et al., 2007).

Members who seek power tend to view the world around them as being organised along a dominance hierarchy. Those who occupy a higher position on this scale hold a more dominant position than those beneath them. The social dominance orientation (SDO) is where individuals will seek out membership with groups that hold dominant positions within their organisational context and try to gain leadership roles within those groups (Sidanius & Pratto, 1999). These members will strive to maintain member differentiation and a defined member hierarchy within their group (Sidanius & Pratto, 1999). They will act in a dominant and assertive

manner, applying the law of the jungle, where only the strong survive (Son-Hing, Bobocel, Zanna, & McBride, 2007).

Those that find themselves high on the SDO scale will employ influence tactics to maintain or better their position within a group through the application of the interpersonal influence theory (Higgins, Judge, & Ferris, 2003; Jonason & Webster, 2012). When considering gender and the SDO, men typically hold higher positions than women (Lee, Pratto, & Johnson, 2011). Further members high on the SDO scale differentiate societal groups along a hierarchy scale, viewing certain groups as being superior to others (Sidanius & Pratto, 1999).

Members can claim status within a group through bullying: by committing frequent and persistent negative interplay with one or more fellow members. A bully's actions are facilitated by those members that hold a balance of power within a group, creating a hostile work environment (Salin, 2003). Bullying has become a growing fixture within organisations that comes with a high cost in staff turnover, absenteeism, lost productivity, increased sick leave costs, and decreased job/organisational commitment (Hoel, Einarsen, & Cooper, 2003; Olweus, 2003).

A bully tends to be an individual that has a strong need for power and acts in an open manner to get that power. Bullies are relatively popular members of a group that hold leadership positions, where their treatment of those outside the group or outside their coalition are bullied (Vaillancourt, Hymel, & McDougall, 2003). Bullying is heightened when those who are not directly involved in the confrontation remain silent and do not come to the aid of the bullying victim (Giacalone & Pollard, 1990; Giacalone & Promislo, 2010; Olweus, 2003).

The status granted to members comes in many forms: specific status characteristics, diffuse status characteristics (Ridgeway, 2001), and achieved status (Foladare, 1969; J. Turner, 2006a). The level of specific status characteristics or diffuse status characteristics that a member can acquire is defined by the expectation-states theory (J. Berger, 1992; J. Berger et al., 1974). Under this theory, a member is granted status characteristics when their fellow members assume that they have the abilities to complete group tasks based on their prestige or professional history.

A group assigns specific status characteristics to a member when it assumes that member has the required skills to complete a group task (Ridgeway, 2001). When a group assigns diffuse status characteristics to a member, they are assuming that a member has the abilities to complete a group task based on their general social status they hold outside the group (Hogg, 2001a; Oldmeadow, 2007). A member is given achieved status based on the merits of their past achievement(s) (Correll & Ridgeway, 2006). For example, the higher status an academic achieves in one field will be enjoyed in another unrelated field—a phenomenon is known as a status generalisation (Molm, 1986; Ridgeway & Balkwell, 1997). Status can be attributed to each member of the group that is the sum of all the positive and negative diffuse and specific status characteristics found within the group, known as aggregate performance expectation (Ridgeway, 2001, p. 360). The positive and negative diffuse and specific status characteristics are those characteristics that the members have deemed either beneficial or harmful to the group's ability to function.

Members provide opinions and solutions with achieved status. Diffuse or specific status characteristics are given more consideration during group interplay, influencing group decision-making, and openly evaluating the group ideas and processes. The group will defend the opinions and ideas provided by members with one or more of these status elements despite a lack of evidence that those ideas and opinions have credence (J. Berger, Ridgeway, & Zelditch, 2002; Ridgeway, 2001).

Status within long-standing groups typically has initiating points, where specific and diffuse status characteristics that over time as members repeatedly interact across a wide range of tasks demonstrate unknown abilities, creating a shift in their specific and diffuse status characteristics, changing member expectations. If a member's performance is assessed by an external source and their performance was found lacking, this can have a profound negative effect on the performance expectations associated with that member (J. Berger, Fisek, & Norman, 1989). Overall, member status evolves as unknown information becomes known, whether that information has a positive or negative effect on member status.

Norms. A group's interaction patterns are facilitated by its norms, which are "shared expectations about how all group members ought to behave" (Levine &

Moreland, 1998, p. 427). A group's norms are dynamics revealed through the behaviours displayed when conforming or disregarding norms that generate behavioural regularities or irregularities (Barker, 1993; Zurcher, 2006). The development of norms can be seen through differing theoretical perspectives (Bettenhausen & Murnighan, 1985, 1991; Feldman, 1984; Opp, 2001) and displayed as implicit (Ridgeway, 2001) or explicit normative behaviour (McGrath & Argote, 2001).

It has been argued that a group's initial norms represent the recursive behavioural patterns (Feldman, 1984) that self-organise and emerge (Goldstein, 2011) while a group is initially forming. These initial norms constitute the basis for eventual future norm development (Feldman, 1984; Gersick & Hackman, 1990). However, over time, changes within a group's contextualised environment will result in adaptation to existing norms or the development of new norms (Gersick, 1988). Contextual changes can be the addition of new group responsibilities, to the need to address various system shocks. Norms to deal with these changes in circumstances originate either from a group's leader or are replicated from norms found within a group's context (Opp, 2001). Despite the initiating factor or norm source, the creation process follows the "instrumentality proposition", where norms emerge when the related behaviours facilitate group goal attainment or meeting a member need (Opp, 2001, p. 105).

Bettenhausen and Murnighan (1985) took the perspective that norms were the creation of cognitive processes. Members come to a group with a historical sense of the correct behaviours (or scripts) to be applied to specific situations. The ability of a group to develop norms is dependent on the group's ability to negotiate behavioural outcomes—a process that is facilitated by members having similar scripts and can classify situations in a similar fashion (Bettenhausen & Murnighan, 1991). Group norms tend to be stable over time and resistant to the effects of membership change (Jacobs & Campbell, 1964).

Past research has shown that norm stability can be affected by the demands placed on members (Weick & Gilfillan, 1971) and the arbitrariness of norms (MacNeil & Sherif, 1976). Current research views norm stability from a relational perspective,

where interplay between a group and its contextualised environment leads to norm creation that is flexible during periods of group stability (Reus-Smit, 2001). From this perspective, the importance of group norms lies not in representing long-held rules of behaviour but in the degree that they are shared amongst group members (Katzenstein, 1993). Therefore, norms must be evidenced as both empirically and conceptually occurring within a group. Wiener (2007) proposed “three constructivist logics” about how norms function and are shared. An observed behaviour can suggest the presence of a norm, and if this behaviour is recursive; it can be defined as a norm. Lastly, for a norm to attain legitimacy, it must invoke identifiable and recursive behaviours in the absence of formal rules and regulations.

The effect of norms on groups has focused on issues of conformity, deviance, and performance. Norm conformity is the result a decision to accept a norm that is based on all the costs and benefits a member faces with either breaking or following a norm (Opp, 2001). The issue of deviance is the consideration of the circumstances that lead a member(s) to deviate, stand alone or withdraw from the group (Abrams, Hogg, & Marques, 2005; Williams, Forgas, & Hippel, 2005). Group performance is gauged by the success of its intragroup behaviours that facilitate the attainment of group goals or member needs.

Group success is increased with the presence of collective efficacy norms (Bandura, 1997) that support a group’s belief that they can perform assigned tasks well—a belief based on task context that will influence the initiation of group involvement, dictate the level and sustainability of group effort (Stajkovic et al., 2009). Further norms that increase the level of group consensus and cohesion will have a positive effect on group performance (Argote, Turner, & Fichman, 1989; O’Reilly & Caldwell, 1985).

The relational approach towards understanding group norms runs counter to how normative behaviour is traditionally studied, by exploring how individual interactions influence the development of group norms (Reus-Smit, 2001). I argue that the relationship between a group and its contextualised environment is required to flesh out how and why group norm development is initiated and adapted over time. Further, the influential role played by a group's changing

contextual circumstance, and norm adaptation need to be understood to unfold the story of the relationship between norms and group behaviour.

Conflict

Group conflict is a dynamic defined as either intragroup or intergroup conflict, depending on the root of the conflict is either within a group or between a group and other social entities. Group conflict occurs when two interacting social entities become aware that their needs or goals are incompatible (Boulding, 1962; Korsgaard, Soyoung, Mahony, & Pitariu, 2008). Those involved in a conflict will have initial and subsequent self-doubts regarding the validity of their stance within a conflict (Wall & Callister, 1995).

A group conflict has three components: awareness, needs, and social entities. When two parties become aware that they are in conflict, they will use cognitive, behavioural, or emotional constructs to support their positions (Barki & Hartwick, 2004) and they will demonstrate antisocial behaviours that are filled with negative emotions (Fink, 1968; Pelled, Eisenhardt, & Xin, 1999; Pinkley, 1990). Conflict typically occurs when needs or goals sought by two separate social entities are incompatible, placing their behaviours, values, and beliefs in conflict (De Dreu & Gelfand, 2008). The social entities component of conflict emphasises that conflict can occur at any level within an organisation, from the micro level between group members to the macro level between a group and larger social entities (De Dreu & Gelfand, 2008; Smith-Crowe, Brief, & Umphress, 2008).

Intragroup conflict typically takes on three forms: task, relationship (Guetzkow & Gyr, 1954), or process conflict (Jehn, 1997a, 1997b; Jehn, Northcraft, & Neale, 1999). Task conflict is related to the interdependence and substance of a group task, where the awareness of differences in opinion exist related to the merits of a task (Amason & Sapienza, 1997). The greater the interdependence amongst members to complete a task, the greater the opportunity for conflict to occur (Jehn, 1995).

Relationship conflict or affective conflict takes place when members become aware of interpersonal differences that involve affective components such as stress, anger, or fear (Amason, 1996; Pinkley, 1990). Process conflict occurs when members differ on how a task should be completed, specifically concerns over task assignment and

resource allocation (Jehn & Mannix, 2001; Pelz & Andrews, 1966). Process conflict increases when task assignment and resource allocation are the determining factors on which process will be applied (Jehn, 1997b; Jehn et al., 1999; Thatcher, Jehn, & Chadwick, 1998).

Intergroup conflict has been noted as one of the most significant social problems of our time (Steinel et al., 2010). Sherif (1966) defined intergroup conflict as a dispute over resources, where the attitudes and behaviours of a group directly reflect the perspective held towards other groups. The competition for resources between groups places the goal attainment potential of each group in jeopardy, leading to feelings of resentment and dislike. Assuming a position of conflict between two groups does not guarantee that they will not cooperate mutually towards goal attainment. Mutual support can occur when the attainment of competing group goals demand similar outcomes. The presence of cooperation allows each group to maximise their own outcomes (Tindale, Dykema-Engblade, & Wittkowski, 2005). Further, if group goal attainment requires each group support the other, a state of cooperation can occur, which is reflective of exchange and rationality at the group and member levels (Homans, 1974). Tajfel (1982) defined intergroup conflict through social identity theory, where the categorization of differing groups is done by their members.

Members of a group (in-group) will have positive feelings regarding their membership, giving them heightened self-esteem. In-group members do not express these feelings nor experience an increase in self-esteem towards a group (out-group) that they do not hold membership. The in-group and out-group perspective was taken further by J. Turner, Hogg, Oakes, Reicher, and Wetherall (1987), who stated that the social identity divide between the in-group and the out-group is far greater than was noted by Tajfel (1982) and increased when self-esteem was threatened or during times of heightened uncertainty.

The nature of group work has highlighted the inherent advantages and disadvantages of conflict (De Dreu & Gelfand, 2008). Task conflict can stimulate innovated thought processes that enhance creativity and group performance (De Clercq, Thongpapanl, & Dimov, 2009; De Dreu, 2006, 2008; DeChurch & Marks,

2001; Hoffman, Harburg, & Maier, 1962; Jehn & Bendersky, 2003; Tekleab et al., 2009), whereas the presence of process and relationship conflict depresses group performance (De Dreu & Weingart, 2003; Jehn, 1997b). Process conflicts are based on task delegation or role assignment and can involve personal connections in terms of associated professional status (Jehn & Bendersky, 2003). Relationship conflict results in heightened emotions and cognitive load, which can limit cognitive flexibility and creative thought (Carnevale & Probst, 1998).

Task conflict can improve task discussion, providing better task understanding, higher quality decisions, and member acceptance of those decisions, resulting in a higher level of group performance (Olson, Parayitam, & Yongjian, 2007). However, these positive effects are context sensitive. For example, when task and relationship conflicts occur simultaneously, the negative emotional effects of the relationship conflict can overcome the potential positive effects of task conflict (Jehn & Bendersky, 2003). These two examples demonstrate the negative power that relationship conflict can have on group performance.

The effect of conflict on group performance is measured by three criteria: group sustainability, membership stability, and member satisfaction (Cooper & Watson, 2011; De Dreu & Weingart, 2003; De Wit, Greer, & Jehn, 2012; Guerra, Martínez, Munduate, & Medina, 2005; Jehn & Bendersky, 2003). Group output is an objective measure of a group's ability to meet or surpass management's expectations (Hackman, 1987). Group sustainability, membership stability, and membership satisfaction are subjective measures that members demonstrate when they view group membership as supporting individual members meeting their needs (Hackman, 1987).

Group conflict can have two sources, either intragroup or intergroup, and has been studied from both perspectives using social psychology (Amason & Sapienza, 1997; Guetzkow & Gyr, 1954; Jehn, 1995, 1997b) for the former and sociology for the later (Steinel et al., 2010). However, intragroup conflict is influenced by intergroup conflict and vice versa (De Dreu & Gelfand, 2008; Smith-Crowe et al., 2008).

Therefore, the interactions that occur within a group and those that occur external to a group will influence intragroup conflict and intergroup conflict. As these two

conflict sources influence, each other, they induce in each other behavioural adaptations over time due to their interaction. Therefore, to understand group conflict requires a simultaneous holistic exploration of both intragroup and intergroup conflict that goes beyond the application of either a social psychology or sociology perspective alone.

2.6. Methodological Approach

The research into group behaviour has been guided by two paradigm perspectives: positivism and interpretivism. These paradigm perspectives were used to study the effect of a group on its members, to gain an understanding of group interactions, or to study group task performance (Doolittle, 2014; McGrath, 1997; McGrath et al., 2000). The majority of research over the past century into group behaviour was performed from the social psychology perspective and related social sciences applying a positivistic paradigm (McGrath et al., 2000). The positivist paradigm seeks to find universal laws to explain group behaviour (Ritzer, Zhao, & Murphy, 2006) that was created in a laboratory setting using artificially constructed groups performing arbitrarily assigned tasks over short periods of time (McGrath et al., 2000).

The use of a positivistic paradigm sought to reduce the understanding of group behaviour to the base units found within an input-process-output model (I-P-O) (Ilgen et al., 2005; McGrath, 1964; McGrath & Altman, 1966), such as inputs, processes, mediators, moderators, and outputs, that occurred across a short period of time (Hackman, 1987; McGrath, 1984). System inputs are task characteristics, contextual elements, or group members. Member interactions, communication, coordination, mediators (McGrath & Altman, 1966), or moderators (D. Muller, Judd, & Yzerbyt, 2005) occupied the process section of the model. Systems outputs were either task focused on a produced outcome or the commitment of a group's members to the group's effectiveness (socio-emotional domains) (Ilgen, 1999). The factor of time was the length of time between the addition of input into a system and a system's production of output (Hackman, 1987; McGrath, 1984).

The study of group behaviour through the application of a positivist paradigm has displayed four recurrent themes (McGrath et al., 2000). Groups were viewed as

simple systems where behaviour occurs in a linear, cause and effect manner. A group was studied removed from its contextualised environment and, more importantly, void of interaction with those contexts that change over time, except for the temporal relationship between inputs and outputs. Lastly, groups and their components are generic and interchangeable across all groups. The findings from this paradigm perspective do not reflect behaviours displayed by naturalistic groups in situ, where the behaviours are the product of the complex dynamic interplay between a group, and its contextualised environment that is influenced by time.

There have been field studies into behaviour displayed by naturalistic groups in situ. However, these studies focused on groups in isolation over short periods of time (Ilgen, 1999; Morgeson & Hofmann, 1999). Other studies focused on the dynamic patterns of group interplay, trying to find the base unit (micro-level) to explain behaviours that occurred during group communication (Bales, 1950). Further, the positivistic paradigm was used to reveal phase patterns of behaviours displayed during group problem-solving and decision-making (Bales & Strodtbeck, 1951; Vanlear & Mabry, 1999). Positivistic research expanded to identifying group developmental patterns and lifespans focused on isolating the linear cause and effect relationships (Gersick, 1988, 1989). Once these relationships were identified, they were used as units of measure to determine what level of development a group had attained or at what point in a group life span scale had been reached (Tuckman & Jensen, 1977; Worchel, 1994).

Interpretivism is not a singular and clear paradigm. It is demonstrated through its variant forms of conservative, constructivist, critical and deconstructionist (Butler, 1998). For the purpose of this study I will focus on the constructivist perspective that has the core tenet "that the meaning of things is not inherent" (Holstein & Gubrium, 2007, p. 232). The meaning of things are created, learned, used and revised with social interplay leading to the formation of commonsense knowledge (P. Berger & Luckmann, 1966). The interpretive paradigm seeks to gain an understanding of the subjective meanings of individuals being studied is the interpretive paradigm. Central to interpretivism is to recognise those subjective meanings that exist within the social world and to manipulate them to gain an

understanding without distortion and to use that understanding to develop theorization. The interpretivist views organisational environments as ambiguous, emphasizing the presence of a process of social construction (P. Berger & Luckmann, 1966). Meanings within these environments are socially constructed and open to further interpretation.

Organisational members act based on their interpretations (sensemaking) which they, in turn, interpret when making future actions (Weick, 1979). The fundamental goal of organisational members moves seeks understanding through discussing interpretations then acting on the unknown (Daft & Huber, 1987). Over time organisational members will refine their actions as they enact and test “multiple alternative interpretations with a variety of actions” (C. Ford & Ogilvie, 1996, p. 57) creating general task or environmental knowledge.

Through the review of the two different methodological paradigms used to study group behaviour, I have offered an understanding of the relationship these paradigms have regarding the study of group behaviour. Each paradigm has its primary research focus related to the effect of the interplay of individuals, groups, societies, and communities on group behaviour. I argue that group behaviour is the result of interaction both within and between a group and its contextualised environment, where the outcome of those interactions is the product of a nonlinear causal relationship—a relationship that evolves, generating purposive adaptations in group behaviour. If those behavioural adaptations became recursive, they will self-organise and emerge as group dynamics. Group dynamics are a product of multiple interactions over time that cannot be understood by unfolding those interactions down to separate causal relationships. To gain an authentic understanding of group dynamics requires the interpretation of behaviours demonstrated by a naturalistic group in situ.

2.7. Methodological Argument

The methodological paradigms of positivism and interpretivism are each based on a separate set of assumptions that lead to unique insight into group behaviour. The positivist paradigm seeks to find the root causal relationships to explain why a group

demonstrates a behaviour during a specific situation. Using an interpretivist approach is that the researcher has no preconceived reductionist expectations about what will constitute meaning. Instead, the focus is on understanding participants' world views and interactions, not the researcher's. A constructivist approach argues that meaning is socially constructed between group members; meaning is thus emergent, making it congruent with a complex systems approach. Thus, I employed an interpretivist/constructivist set of guiding assumption. The question I now pose is, which stance will best meet the needs of my study? To facilitate answering this question, I have extrapolated five guiding principles, based on the literature and my above methodological critique, that I will use to underpin my research objectives:

1. Intragroup dynamics are a product of behaviour patterns that self-organise and emerge from within a pre-existing naturalistic group in situ as it interacts with its contextualised environment.
2. The interaction between a group and its contextualised environment is nonlinear.
3. A group's behaviour patterns are the product of the social interaction between members and is based on the interplay between the past and present states of a group and its members.
4. As a group's behaviour patterns, self-organise, they emerge as dynamics over time and understand those dynamics, demonstrated through typical behavioural patterns that must be observed and interpreted over time.

Group behaviour is not the sole product of multiple linear cause and effect relationships that occur in isolation (Hackman, 2012). A group is in a continuous state of interplay both within and across its contextualised environment, where those recursive interactions are forming behavioural and cognitive patterns. These patterns self-organise and emerge as group dynamics, such as norms, cohesion, roles, structure, and temporal patterns, representing consensus and conflict cycles, normal fluctuations in performance, and changing patterns of communication (Arrow et al., 2000; McGrath et al., 2000; Walby, 2007). The influence of a group's changing contextual circumstances from inception, and throughout evolution, play a role in affecting behavioural and cognitive pattern adaptations (Arrow et al., 2000). The concerns raised regarding the use of the positivist paradigm to form an

understanding of group behaviour has led me to study group behaviour through the lens of complexity and the view of groups as CAS (Arrow, 2005).

To gain an understanding of group behaviour that is a product of multiple interaction patterns both within and across a group's contextualised environment requires a methodological paradigm shift from the positivistic to the interpretivist paradigm, where a holistic understanding of group behaviour can be provided. Further, group behaviour patterns self-organise and emerge are socially constructed through the interplay with its contextualised environment. Defining the complex causal relationships that underpin group behaviour resists the application of a reductionist methodological paradigm to reveal the linear causal relationships that exist between the base units of group behaviour. The interpretivist paradigm approaches group behaviour from the standpoint of being socially constructed over time. The use of a constructionist epistemology would provide an understanding of emergent group dynamics that are the result of behavioural patterns that self-organise and emerge over time.

The use of a constructivist paradigm to the study of group behaviour takes “the view that all knowledge, and therefore all meaningful reality as such, is contingent upon human practices being constructed in an out of interactions between human beings and their world, and developed and transmitted within an essentially social context” (Crotty, 2010, p. 42). The constructionist epistemology views the creation of knowledge as the result of social interaction and not the product of discovery. A group is a socially constructed entity that is not an abstract concept made concrete through an objective process. As a socially constructed entity, a group does not maintain a fixed point in space or time or static boundaries that exist independent of its contextualised environment (Frey, 2004).

The social construction of group behaviour occurs as a group interacts with its contextualised environment and creates recursive behaviours. To study this social construction process requires employing methods that rely on the use of interpretation of how a group behaviour is created. The use of an interpretive paradigm to the study of group behaviours “looks for culturally derived and

historically situated interpretations of the social world” (Crotty, 2010, p. 67) and aims to see the world through the eyes of its members.

2.8. Conclusion

Groups exist within a contextualised environment that is under the influence of changing situational factors, external conditions, and time. The patterns of interaction are variable and wide-ranging, lacking predictability due to the continuously changing contextualised environment over time. These patterns of interaction self-organise and emerge as dynamics that are revealed through group behaviours. A group interacts both across and between its contextualised environment it demonstrates dynamics in accordance with those changes in its contextual circumstances (i.e. information processing, group viability, member needs, group structure, conflict). Over the course of this interplay, a group is under stress from positive feedback loops that can overwhelm its resistive forces initiating critical fluctuations leading to eventual bifurcation and a shift to a new behavioural equilibrium state. The nature of group behaviour is complex being the product of a range of potential social interactions over time demanding a research paradigm with parameters that can encapsulate that behaviour of a group naturalistic group in situ.

The study of group behaviour resists the use of a positivistic paradigm due to complex interactions that cannot be reduced to a simple set of laws. Further group behaviours are not the sole product of interactions at the intragroup, extra-group, or contextual dynamical layers, resisting their study through the sociology and social psychology perspective. I argue that a deep and contextualised understanding of group dynamics can be achieved using an interpretivist/constructivist perspective through the lens of complexity, the use of CAS, coupled with a grounded theory methodology. In the next chapter, I will inform how I applied this research paradigm to unfold the story of the emergence of group dynamics.

CHAPTER 3

METHODOLOGY

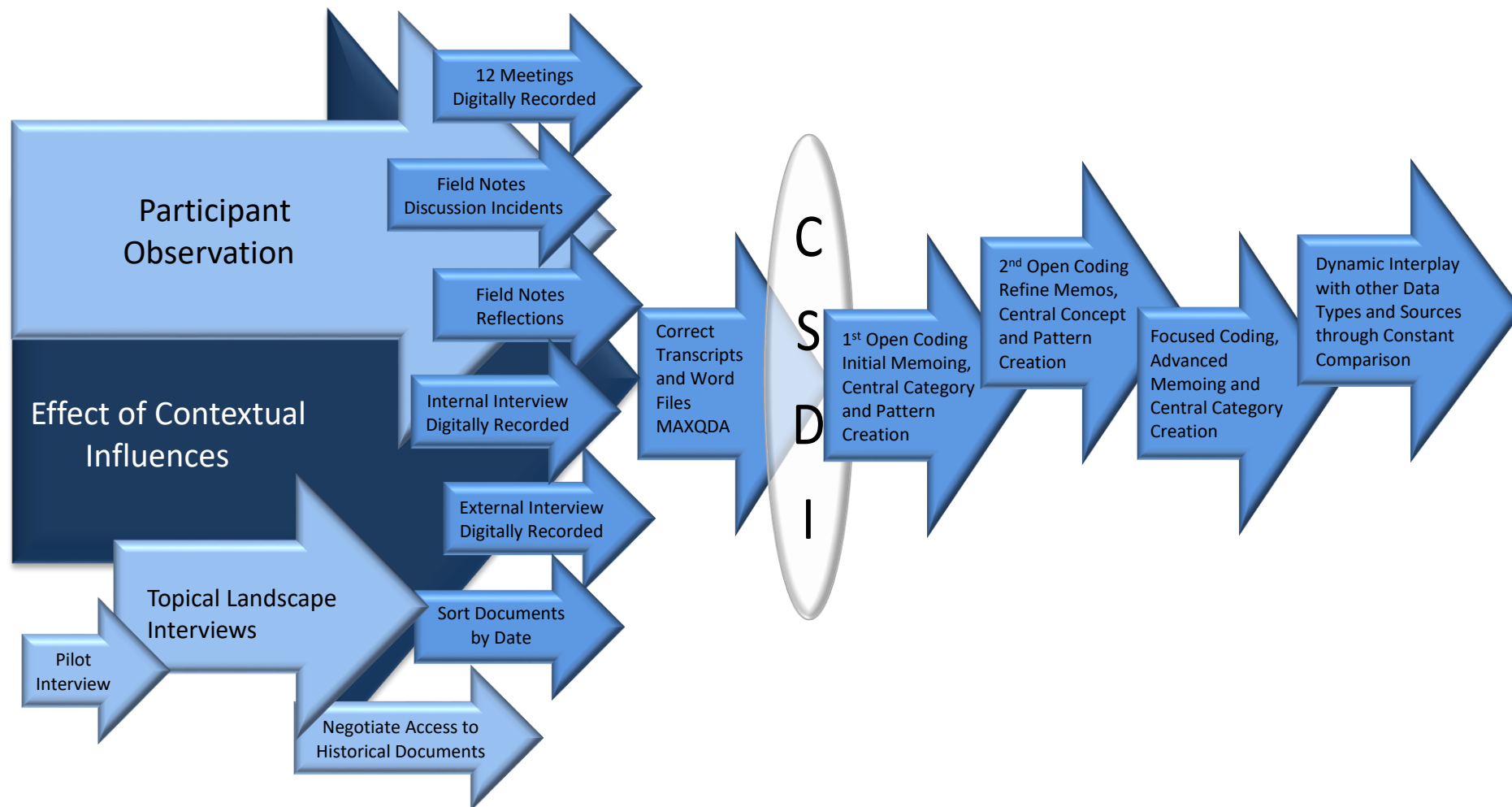
“Methodology is the strategy, plan of action, process or design lying behind the choice and use of particular research methods.” (Crotty, 2010, p. 3)

3.1. Introduction

In the preceding chapter, I positioned my research within the extant literature, culminating with an argument justifying my research paradigm as the best approach to address my research problem and questions. In this chapter, I present my researcher positioning, which includes a discussion of the ontology, epistemology, and theoretical perspective that I applied to this study. My positioning and the needs of my research paradigm informed the selection of my methodology and the need to draw upon and analyse data on behaviour found within an inherently complex, contextualised organisational system known as a group. Further, my methodology had to provide an approach that allowed me to interpret group behaviour data to create a holistic understanding of the social processes underlying group behaviour. The methodology that met my research demands was Charmaz’s (2006) constructionist grounded theory (CGT) method.

The use of CGT allowed me to attain a depth of understanding by offering me “thick and rich data descriptions that were contextualised” (Leech & Onwuegbuzie, 2007, p. 560) and represented the “holism, with strong potential for revealing complexity” (Miles & Huberman, 1994, p. 10). In the pursuit of authenticity, data was collected that was contextually sensitive from a naturalistic group in situ (Cooksey, 2008; Leech & Onwuegbuzie, 2007). The data was collected from a group embedded within a greater organisational context and viewed through a case study approach. Using the multiple method research approach, data was collected data from a group using participant observation of 12-monthly meetings, historical documents, internal interviews, external interviews, and researcher field notes (Brewer & Hunter, 2006) (see Figure 3.1).

Figure 3.1. Data Collection Sources



The use of a multiple method research approach provided opportunities for triangulation that “can increase the rigour and trustworthiness of the findings” (Leech & Onwuegbuzie, 2007, p. 575). Data was initially organised through the lens of Cooksey’s (2001) CSDI, then analysed using progressively finer grained coding and memoing, that led to the emergence of central behavioural categories.

3.2. Researcher Positioning

My researcher positioning story unfolds beginning with my relativist ontological stance and how that stance informed my constructivist epistemology. As a relativist, I recognise that different individuals will have perspectives that differ from me when observing the same phenomena. Those differences are rooted in the unique personal and professional backgrounds held by everyone. Therefore, my understanding of a phenomenon’s reality will be distinct from that held by another individual (Crotty, 2010). What I describe as reality is, therefore, my socially constructed interpretation based on my personal and professional history, which informed my constructivist epistemology.

My application of a constructivist epistemology led to questions on which theoretical perspective would best provide me with the ability to answer my research problem and related questions. My constructivist understanding of a group’s social phenomenon was the product of the interplay between me and my data, where I applied an interpretivist approach to my data to provide insight into a group’s behaviour. As my understanding grew emergent, central concepts began to appear which informed my use of CGT in developing theoretical propositions to explain those behaviours.

Traditionally, group research has occurred against the backdrop of various historical and contemporary views of group behaviour as seen through the distinct lenses of psychology, sociology, or complexity (Cartwright & Zander, 1968a; McGrath et al., 2000). I became convinced that the application of psychological, sociological or complexity perspectives in isolation would not provide a sufficient depth of understanding of a group’s dynamics within an organisational context. I found that the application of all three research perspectives in combination would facilitate

answering my research problem and questions. Accordingly, I proposed that the social reality of group behaviour within an organisational context is a multidimensional and multi-levelled construct that emerges as a group interacts both within and across its contextualised environment over time. When this construct is viewed through the lens of multiple contextual spheres of dynamic influence (CSDI) (Cooksey, 2001), it presents an organised holistic perspective of a group's dynamics.

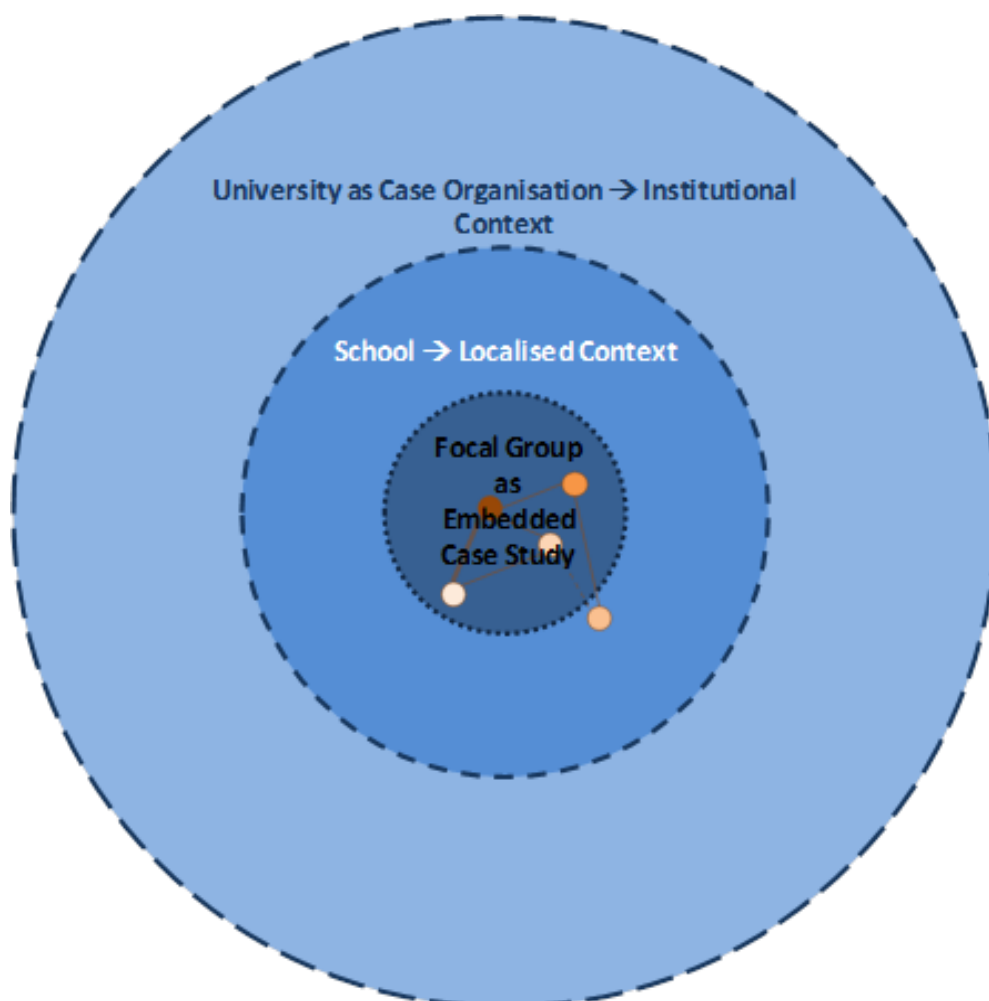
Based on my ontological and epistemological stance, I needed to position myself close to my data to allow me the opportunity to collect and interpret the data in ways that provided insight into the contextualised interaction patterns displayed by a group. Within this conceptualised approach, I constructed a coherent methodology for the data gathering and analysis to facilitate my understanding and interpretation of the data. The CSDI provided a coherent conceptualisation that allowed me to unpack the complex nature of a group's interactions that were under the influence of the interplay that occurs both internally and externally to a group. Once these interactions were unpacked, an interpretive approach allowed me to drill down and grasp an understanding of that interplay. My interpretive theoretical perspective had to provide an understanding of a group's multiple contextualised interactions that were influenced by time. Further, my research paradigm had to provide a "scaffold of learning" (Crotty, 2010, p. 1), giving my research journey "stability and direction", (p. 2) as I progressed down the path of answering my research questions.

3.3. Case Study Research

Case study research is an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not evident (Yin, 2009). I employed an embedded case study research approach, where I explored a smaller group embedded in a larger organisational context, enabling me to concentrate the focus of my research and apply a multiple method research approach to data collection. The darker inner circle of the figure is the focal context of my research, with the dashed lines indicating loosely permeable boundaries between layers and

contexts through which contextual pressures can represent either internal or external forces of change (see Figure 3.2).

Figure 3.2. Case Study



3.4. Background and Justification for Grounded Theory

CGT is an inductive methodology, where new theory emerges from data (Chenitz & Swanson, 1986; Goulding, 2002; Locke, 2001) through “a set of performative and interpretive practices and ways of making the world visible” (Bryant & Charmaz, 2010, p. 459). The concept that the world can be made visible is based on the premise that we are embedded in a sea of complex social interactions that, when viewed through a systematic approach, reveal an identifiable order and patterns that offer an understanding of those social interactions. CGT offers this narrative through coding, theoretical sampling, and constant comparison of data to central

categories, where theory development occurs as theoretical saturation is reached (Bryant & Charmaz, 2010).

CGT is not held to follow one systematic approach and offers a degree of flexibility with variation in method and epistemology, as demonstrated by its multiple versions: positivist, postpositivist, constructivist, objectivist, postmodern, situational, and computer assisted (Charmaz, 2006; Clarke, 2005). Strauss (1993) noted that GT offered a means of unravelling complexity, providing interpretations that did not over simplify but offered an in-depth level of comprehension represented by the identified order that emerged from the complexity. CGT is, therefore, a suitable methodology for this study, which is to describe and explain the social processes related to the emergence of group dynamics.

GT methods were first presented by Barney G. Glaser and Anselm L. Strauss (1965; 1967) during their collaboration on studies on the dying in hospitals. Glaser was a positivist researcher, and Strauss was a social researcher that assumed a symbolic interactionism perspective. Glaser came from Columbia University, where positivism was empathised and encouraged in the “epistemological assumptions, logic and systematic approach to grounded theory” (Charmaz, 2010, p. 7). Positivist concepts were prominent in Glaser’s efforts to codify qualitative research methods by specifying specific strategies for conducting research and simplifying research methodology. Strauss brought to the partnership a pragmatist philosophical stance “that informed symbolic interactionism, a theoretical perspective that assumes society, reality, and self-are constructed through interactions and thus rely on language and communication” (Charmaz, 2010, p. 7).

Glaser’s positivist perspective was translated into a qualitative analysis that utilised codified guidelines that reveal the properties of theoretical categories, demonstrating causal relationships, where social processes emerge and vary as contextual circumstances change. The core components of GT include:

- Simultaneous involvement in data collection and analysis
- Constructing analytic codes and categories from data, not from preconceived logically deduced hypotheses

- Using the constant comparative method, which involves making comparisons at each stage of the analysis
- Advancing theory development during each step of the data collection and analysis
- Memo writing to elaborate categories, specify their properties define relationships between categories and identify gaps
- Sampling aimed toward theory construction, not for populations representativeness
- Conducting the literature review after developing an independent analysis

(Charmaz, 2010, pp. 4-5)

By the 1990s GT methodology had evolved beyond the restrictive positivist view advocated by Glaser (Bryant, 2002, 2003; Charmaz, 2000, 2002, 2006; Clarke, 2005; Schatzman, 1991; Seale, 1999). Schatzman (1991) brought forth a variant of GT, a dimensional analysis that recognised the role of the researcher. Phenomena had recognisable dimensions that were assigned values, along with inferences about them and the role of a researcher's "wherewithal to construct, analyse, and define situations" (Bowers & Schatzman, 2009, p. 97). Schatzman (1991) regarded this sensemaking, as an implicit, intuitive process based on the experience of the researcher.

The development of CGT incorporated "the post-modernist sensibility" (Bowers & Schatzman, 2009, p. 41). The role of the researcher in collecting and analysing data became components of constructivist GT, applying a relativist epistemology that assumes the researcher and their research participants are always inexplicitly linked (Charmaz, 2009). Charmaz (2006) view of constructivism recognises that the investigation practices and procedures do not occur in a context without personal values or standards.

The constructivist perspective views research practices and procedures that require an interplay between the researcher and the data, where the researcher is an instrument that creates and constructs data collection (Creswell, 2006; Morrow, Rakhsha, & Castañeda, 2001). The interplay acknowledges that subjectivity will enter the research process, making provision for researcher biases, preconceptions, and history to influence the data collection and analysis process (Morrow et al.,

2001). The researcher must, therefore, be aware of their impact on the research process through reflexivity to allow theory to emerge that is indicative of their research participants.

To meet the needs of my research, CGT addressed my research questions through the collection of data that is contextually sensitive to adaptations that occur over time. CGT afforded me access to multiple data sources through the application of multiple method research, where I closely positioned myself to the data through participant observation, one-on-one interviews, and the maintenance of field notes. Being closely positioned with my data provided me with a high level of contextual sensitivity, where I could observe changes in a group's interactions as contextual influences changed. CGT is systematic; it not only offered a flexible approach to data collection and analysis but provided a process where the construction of theories was 'grounded' in the data (Charmaz, 2010, p. 2). CGT is driven by the process of constant comparison, where data is progressively coded leading to the emergence of central categories and future theory development.

Constant comparison within CGT allowed me to manage my multiple data sources and created a data convergence that led to addressing my research questions through substantial theory development while presenting a heightened level of sufficiency. Within the CGT model, data collection and analysis occurred simultaneously and, through constant comparison, provided the conceptual direction of the successive levels of research. The construction of the analytical directions was based on the interpretation of the comparisons made between data, codes, and the emerging direction that analysis took.

3.5. Guiding Assumptions

With my adaptation of an interpretivist theoretical perspective, I applied three basic tenets of symbolic interactionism (Crotty, 2010). First, group members interpret and shape their world to meet their needs (Blumer, 1969). Second, the interpretation and shaping processes do not occur in a vacuum but were influenced by an individual's history, personality, status, power, and cultural beliefs (Blumer, 1969; Johns, 1996; J. Mills, Bonner, & Francis, 2006). Third, within a group context,

members applied their personal perspectives as they interacted with multiple embedded contexts in an attempt to interpret and shape group interaction to meet their needs (Blumer, 1969; Piiparinen, 2006). Those group dynamics that emerged over time were those behaviours that a group had repeatedly applied successfully to similar interactions with its multiple embedded contexts that existed both internally and externally to a group.

To gain an in-depth understanding of those dynamics through the displayed group behaviours, I observed and interpreted member interactions within a pre-existing naturalistic group in situ over a 12-month period. I recorded both the verbal and nonverbal communication that occurred during those interactions, which were interpreted by the application of the theoretical perspective of interpretivism, more specifically symbolic interactionism and negotiated order theory (Crotty, 2010).

I argued that group behaviour was the result of social interactions between group members and other social entities influenced by member perspectives that reflected their individual interpretation (Crotty, 2010). It was through the observation of the social interactions within a group context that I interpreted individual innate perspectives, gaining an understanding of a group's dynamics. I viewed group behaviour as the product of the changing demands placed on them by differing contextual sources of influence, where the type and nature of the social interaction between group members adapted to the requirements put on the group through a process of negotiation and adjustment (K. Myers, 2005; K. Myers & Oetzel, 2003; Waldeck & Myers, 2008). Group members negotiate and adjust their social interactions to meet the needs of changing demands being placed on the group while maintaining their set of innate perspectives (Crotty, 2010, p. 77).

My interpretive theoretical perspective was to understand the observed and recorded group interplay in which I was a passive participant observer. In this role, I became a part of the research process, where my interpretation was a product of co-construction between myself and a group. These interpretations were through my "perceptions, attitudes, and values of a community, becoming persons in the process" (Crotty, 2010, p. 8; Hayes & Oppenheim, 1997; Henwood & Pidgeon, 1997).

The use of co-construction within my interpretive process echoed my constructivist epistemology.

CGT provided an approach to interpreting a group's realities and led to the creation of substantive theories that explained and linked the 'how' and 'why' of those interpretations (Charmaz, 2006). A substantive theory emerged through conceptual (inductive) reasoning, grounded or rooted in behaviour, words, and actions of those participating in the research (Glaser & Strauss, 1967, p. 47). The theory was dynamic, pragmatic, and focused on process, rather than specific group outcomes, where the identified links (connections) represented the best fit with the data that was coherent, comprehensive, and simple.

Charmaz (2010) viewed CGT as a constructivist methodology, which treats data as the point where understanding emerges. Hypothesis testing is not the goal; rather, a researcher seeks to find an understanding of how and why observed participants construct meanings and demonstrate actions in certain contexts (Charmaz, 2010, p. 130). Upon initial review, the CGT methodology can appear to be occurring simultaneously, sequentially, cyclically, and multi-directional, creating a state of confusion about what was occurring and when it occurred. However, through my application of the core tenets of grounded theory, my research process was interactive, open-ended, and fluid, guided by the emerging concepts and theoretical constructs, providing order to my data that facilitated understanding of the realities held by a group (Bryant & Charmaz, 2010, p. 178).

3.6. Group Selection

My research was seeking to examine social processes that were revealed through the behaviours demonstrated during group interplay, while a group was under the influence of multiple contextual forces found both internally and externally to the group. I employed a purposive sampling method to allow me to recruit a group that would provide me with thick and rich data (L. Cohen, Manion, & Morrison, 2007; Patton, 2002; Silverman, Pogson, & Cober, 2005). Group selection was central, requiring group characteristics that would provide me with the type of data that met my research needs (Silverman et al., 2005).

I facilitated the group selection process by using a subset of purposive sampling: criterion sampling. Criterion sampling provided me with a means of group selection that met my research needs and allowed me to position myself close to the group, strengthening my data fidelity. I sought a group that would demonstrate behaviours reflective of a self-managed and mature group. After I met with the Head of the School of Education and discussed the type of group that I was interested in, I was presented with the opportunity to approach two candidate groups. I met with the respective group leaders to determine the best fit for my research.

A self-managed group I defined as a group where its members were responsible for monitoring, influencing, and coordinating their work (Barker, 1993; Manz, 1992; Tompkins & Cheney, 1985). Self-directed group work is a shift from the behaviour-oriented to results-oriented management style. Behaviour-oriented management refers to the traditional group where a supervisor directs what tasks are to be completed, how this will occur and by whom. The result-oriented view places value on self-directed group work when the group itself decides how best to attain management goals. Therefore the self-directed group that I sought would have decision latitude (Langfred, 2000) and control over task completion (Hacker, 1985; Volpert, 1990) that involved the group as a whole and did not rely solely on individual members.

A mature group demonstrates the convergence of attitudes and a “congruence of group goals and individual goals” (Wekselberg, Goggin, & Collings, 1997, p. 4), group cohesion and agreement on group goals (Elrod & Tippet, 1998). A mature group is considered highly developed with positive intragroup relationships and quality or quantity levels of performance through ability and willingness (Hersey, Blanchard, & Johnson, 2014). Ability is the knowledge, skill and experience offered by a group as-a-whole. A mature group has the ability to complete tasks without supervision and willingness is reflected in a synthesis of motivation, confidence, and member commitment to complete tasks.

I argue that a mature self-managed group will demonstrate more complex interaction patterns due to their self-reliance, intragroup relationship development and a group goal attainment focus. To assess a group’s maturity level, I applied

Schermerhorn, Osborn, and Hunt's (2012) ten criteria for measuring the maturity of a group (see Table 3.1). Meeting with both group leaders and reviewing existing evidence of group function, I selected the group that was mature (see Table 3.1), had a record of performing discipline-specific research, was viewed by senior management as an effective and efficient group, had a stable membership, and offered a variety of data sources.

Table 3.1. Ten Criteria for Assessing the Maturity of a Group

Criteria	Immature Group	Mature Group
Feedback mechanisms	poor	excellent
Decision-making methods	dysfunctional	functional
Group loyalty/cohesion	low	high
Operating procedures	inflexible	flexible
Use of member resources	poor	excellent
Communications	unclear	clear
Goals	not accepted	accepted
Authority relations	independent	interdependent
Participation in leadership	low	high
Acceptance of minority views	low	high

(Schermerhorn et al., 2012, p. 157)

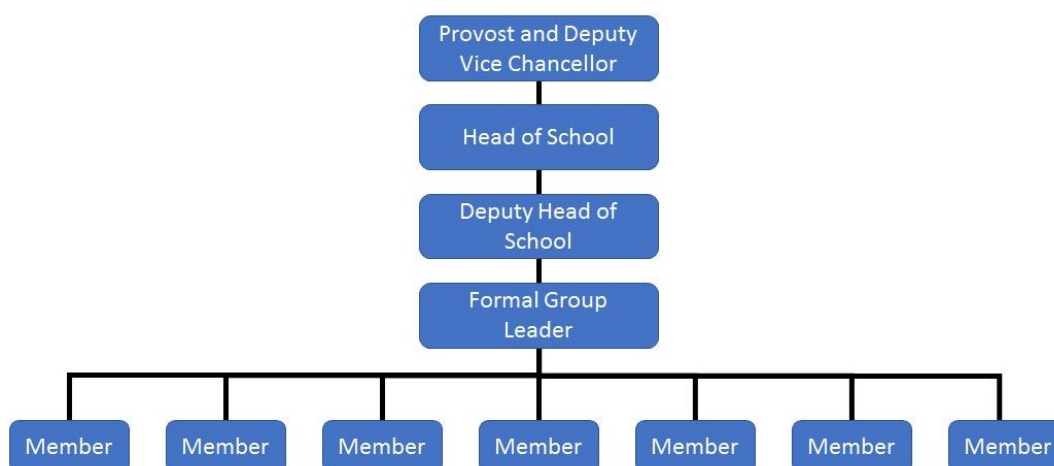
The focal group selected consisted of nine members, with the bulk of the current group membership being in place for six years or more and in which the group roles had changed both monthly and yearly. The focal group membership was a full professor, an associate professor, three senior lecturers, four lecturers, and one administrative assistant. The group's primary focus was to provide research-based curriculum and curriculum review for the [First Program] award, from within the context of the university (recall Figure 3.2). An award is the official university certificate, which confirms completion of an award course of study. The standard award for undergraduates is the Bachelor degree (Curtin University, 2016a).

The focal group was under the influence of its multiple embedded contexts, which caused the group to adapt its dynamics and related behaviours. The group operated as a self-managed group that rotated group roles (chairperson, minutes recorder). The formal group leader was the immediate organisational influence for the group, followed by the deputy head of school, who reported to the head of school, which

in turn reported to the university's senior management represented by the provost and deputy vice-chancellor.

The focal group provided a set of products and services to a university student population in the form of unit instruction and committee work. The formal group leader managed the group, ensuring they supported the attainment of group and school of education goals. The deputy head of school ensured that the formal group leader was supporting the attainment of the school of education and university goals. The head of school directed the deputy head of school to support the achievement of university goals. Senior University management directed the head of school to meet university and societal goals (see Figure 3.3).

Figure 3.3. Focal Group Organisational Chart



The School of Education was embedded within a university context that provided a highly-differentiated curriculum of tertiary education opportunities to a varied student population, both on and off campus. The university had been in service for 52 years and had the aim of meeting university and state government goals. The university was a part of a state-level government system that provided the university with its primary source of funding and product and service governance.

Familiarity Effects

There existed a personal history and a level of familiarity between a few of the focal group members and myself. I would argue this familiarity lessened the adjustment time for these members to my role as a participant observer. A participant observer can make individuals self-conscious, and experience heightened levels of anxiety,

causing them to display abnormal behaviours (Patton, 2002). It is not whether or not behavioural changes occur; it is the increased probability that it will happen (Webb, 1971). I would argue that the existence of my personal history lessened the levels of self-consciousness and anxiety for those members that I knew, to the point where the behaviours they displayed in a group setting were authentic.

Further, I argue that the increased levels of familiarity lessened the degree of socialisation (Moreland & Levine, 1982) required for me to become a part of the focal group's context. My accelerated socialisation into the group would have decreased the need for the application of "behavioural rules" that are applied because of "uncertainty in distinguishing preferred from less-than-preferred behaviour" (Heiner, 1983, p. 561). If an individual is uncertain, behaviours they display during interplay will be viewed positively; they will be guarded and restricted in their behavioural responses, with an increased level of alertness to information that requires prompt attention (Heiner, 1983).

3.7. Ethical Considerations

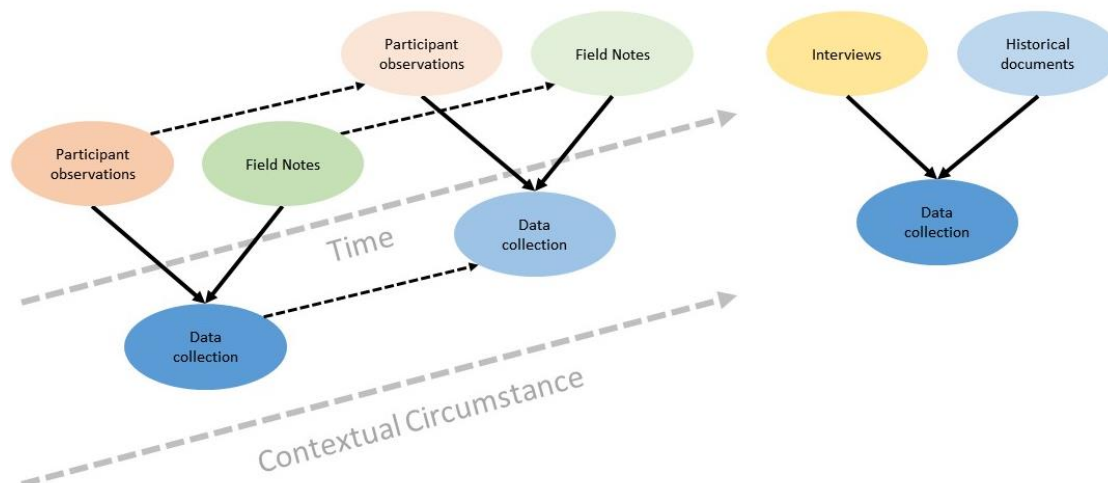
The research followed all requirements for approval by the University of New England's Human Resource Ethics Committee. Informed consent was given for each of the data collection methods used, less the maintenance of my field notes (see Appendix 5, 6, and 7). Informed consent outlined the research scope, including all data collection and security measures that would occur. The University of New England's Human Resource Ethics Committee requested that I submit two Ethics Approval for Research Involving Humans variation forms to clarify questions the committee raised about my research. Upon completing the second variation form, the Human Research Ethics Committee granted me approval number No. HE11 - 199, valid to 30/06/2013.

3.8. Data Collection Methods

The aim of this study was to unfold how a focal group's initial and future dynamics are influenced by its interaction both within and between its contextualised environment over time (see Figure 3.4). To fulfil this aim, I applied inductive reasoning by gathering data from multiple sources to support my theoretical

propositions (Copi, Cohen, & Flage, 2007). My data gathering strategies applied a multimethod research strategy (Brewer & Hunter, 2006), collecting data from as many sources as possible to flesh out an understanding of a group's behaviours from the perspective of the members.

Figure 3.4. Data Collection Process



The multimethod research strategy entailed my collection of data from participant observations, use of field notes, completion of semi-structured interviews, and a review of the focal group's historical documents, which provided me with another source of authenticity through triangulation.

The methods that I applied to account for my preconceptions were a part of a multi-stage process that included having my participant observations of focal group meetings digitally recorded and transcribed by a third party. A third-party transcriber provided me with data that was free of my interpretation regarding what was said and by whom. Upon completion of the transcription, I used my research field notes to record events and incidents that I noted during meetings and interviews. After each meeting or interview, I completed a self-debrief to ascertain if, when, and to what degree my preconceptions may have played in my interpretations.

Three points guided the multimethod research strategy: the type of research questions I raised, the degree of control I had over the studied phenomenon, and whether the source(s) of group data were current versus historical (Yin, 2009). My research questions were asking how and why group dynamics emerge when a group

interacts both within and across multiple contextual fields over time. I exerted no control over my studied phenomena (group interplay). Where instances of researcher influence did occur (researcher preconceptions), they were documented to ensure that my interpretations were authentic to those displayed through group interplay. By being aware of these incidents, I gained a greater insight into the perspectives of the focal group through my interpretations of how they interacted.

Field Notes

My field notes were the tool I used to heighten reflexivity and enhance the transparency of my research while minimising the influence of my preconceptions on interpretations of focal group interactions. The use of field notes required me to reflect on and note instances where my preconceptions played a role in my interpretations (Blaxter, Hughes, & Tight, 2001). Reflexivity was an important part of my research due to my role as the primary instrument for data collection and analysis (Glesne, 2010; Merriam, 1998; Russell & Kelly, 2002; Stake, 1995). Through the application of reflexion, researchers can become more aware of what they observe and what inhibits what they can observe (Russell & Kelly, 2002).

Reflexion requires a careful review of the phenomena of interest as well as an understanding of how the researcher's preconceptions and behaviours affect their research processes (Watt, 2007). Authenticity is an aspect of qualitative research where a researcher reveals a range of different perspectives that are reflective of those held by the research participants (T. Schwandt, 2001), including their "associated concerns, issues and underlying values" (Tobin & Begley, 2004, p. 392). I employed a multi-stage process that enabled me to attain deeper levels of reflection, particularly when my involvement as a researcher may have had an impact on this study.

The initial level of reflection involved using my field notes, where I recorded events or incidents that occurred during focal group meetings or interview sessions. These records included my preliminary interpretations of what those incidents and events may have meant from the perspective of the members involved (see Table 3.2). Immediately after a group meeting or interview, I carried out a self-debriefing

session where I would review my interpretations and reflect on whether I had allowed my assumptions to affect my interpretations.

Table 3.2. Levels of Interpretation

Aspect/Level	Focus
Interaction with empirical material	Accounts in interviews, observations of situations, and other empirical materials
Interpretation	Underlying meanings
Critical Interpretation	Ideology, power, social reproduction
Reflection on text production and language use	Own text, claims to authority, selectivity of the voices represented in the text

Alvesson and Sköldbberg (2009, p. 283)

Immediacy was necessary to ensure that the events and incidents I recorded were still fresh in my memory. Each debriefing session took place in an empty room close to where the focal group met and central to the location of the interview sessions. During these debriefing sessions, where I felt my preconceptions or expectations had influenced an interpretation, I modified the interpretation(s) to exclude my assumptions and behaviours to make the interpretation(s) as representative as possible.

The debriefing sessions produced deeper interpretations of the events or incidents that I observed and added to the authenticity of my research. They led to the recognition of patterns of behaviour displayed by the focal group that became more and more common with each successive meeting I observed. With each successive debriefing session, I assumed a closer position with my data through the examination of the relationships between my interpretations and the data, giving an increased voice (R. Folger, 1977) to the group and heightened reflexivity.

The maintenance of my field notes met two research objectives: recording my observations during group interactions and interviews as well as maintaining a written record of my debriefing sessions. During my participant observations, I recorded focal group interactions that indicated topic areas for further exploration, and I recorded non-verbal use of communicating through body language that provided more detail to what was occurring during a group interaction. My field notes were divided into two columns, one to note/describe incidents or events that

I thought were of importance and the second column was used to record my initial reactions to those events or incidents (see Appendix 4).

At the bottom of each journal sheet was a representation of the meeting room (that had a seating capacity of 20), including the seating arrangement around a central meeting table, window, and door positions. For each meeting, I recorded how the focal group arranged themselves around the meeting table and the observation position I assumed during the meeting room. I recorded the start and finish times for each meeting, plus the arrival times of focal group members. All field notes were recorded using a software program "The Journal version 5" that allowed for ease of uploading for future data analysis (Michael, 2012).

Participant Observation

For this research, I assumed the role of a participant observer, which allowed me to observe the social processes displayed by the focal group (Becker, 1958). The focal group met monthly; each meeting ran for an average of 2.25 hours. My observations of the meetings began in January 2012 and were completed by January 2013; the December meeting was cancelled, for a total of 12 meetings. I yielded 27 hours of observations, with each hour digitally recorded. The group discussions generated 10,991 lines of highly contextualised transcribed data. The meetings occurred in the afternoon starting at 2:00. My observations of the meetings were arranged initially through the group's formal leader.

To record the meetings of the focal group, I used a digital recorder and two flat, non-directional microphones that provided 360^o mic coverage. I also had a backup digital recorder in case problems arose with my initial digital recorder. I placed the flat non-directional microphones at equal distances from each end of the meeting table to capture a clear recording of group interaction regardless of the seating position assumed by the members. Before each recording session, I did a sound check to ensure that I had sufficient recording levels. My observation position was removed from the central meeting table used by the group; I was located 1.5 metres from the group in the corner of the meeting room facing the group, a position that was unchanged throughout my participant observation sessions (see Appendix 4).

My observation position afforded me an unobstructed view of all the focal group members during their monthly meetings. I did not interact with the group during these observation sessions and maintained an observation posture of sitting upright with both feet flat on the floor to lessen my visual presence to the meeting participants. To further limit my influence on the meetings and increase the probability of observing authentic group interaction, I maintained a flat affect throughout all my participant observer opportunities. Included with my participant observations of the group's monthly meetings, I received a copy of the meeting agendas, minutes, and documents presented at each meeting.

Semi-Structured Interviews

The interviews followed a semi-structured format, where the interviewee led the discussion with the interviewer providing occasional discussion guidance with the addition of questions related to a topical landscape (see Appendix 3) (Minichiello, Aroni, & Hays, 2008). The goal of the interviews was to gain data that was both individually revealing and group-specific to better understand and contextualise the focal group interactions I observed. The topical landscape had a range of discussion points that included personal backgrounds, historical focal group involvement, and their current group function (see Appendix 3).

Topical points that related to an interviewee's personal background were where they were born and raised, work history, and academic history. Knowledge of an interviewee's personal background provided data on what influences they experienced during their formative years and how they reacted to those incidents. By exploring a member's work history, they revealed the influences they had along their career path and provided insight into their values and beliefs, especially their terminal values (Rokeach, 1973) and work cohort values (Robbins, Judge, Millett, & Waters-Marsh, 2007). Overall, having the members reveal their personal histories assisted with an understanding of their behaviour in a group context. That understanding could be complicated when their personal history refuted how they behaved in a group context, for example, if a member had a long tradition of assuming leadership positions but would reject being actively involved during focal group meetings.

Revealing a member's past focal group involvement provided data on an individual's value of group work, asking if they sought out group opportunities or were more comfortable working alone. During this historical review, members recounted the positive and negative group experiences, expanding on why those experiences were positive or negative. The historical data provided a point of comparison between a member's personal history and their group behaviour, looking for a more in-depth understanding of why an individual behaved as they did in a group context, for example, a personal incident that caused a shift in how a member values working in a group, or a positive group experience that created a change in a member's terminal values that reflected an observed focal group behaviour.

When the interviews explored a member's perspective on their function within the focal group, I was gathering data that provided more insight into why a member interacted as they did in a group context. Further, I was interested if a member had a realistic view of how they functioned within the group. Did a member assume that they actively involved and supported the group during their monthly meetings when they were typically silent and primarily interacted when issues that they were directly involved? The interviewee would recount their perspective on how the group functioned, highlighting what worked well and what did not. The data gathered here offered the most insight into the group's behaviours by aligning member influences with those behaviours demonstrated.

The interview format consisted of the interviewee and myself, with the interview occurred in the interviewee's office. The location of the interviews was chosen to provide a level of comfort to the interviewee, increasing the probability of receiving more open and authentic responses. All the interviewees were notified that a second interview could be requested if points raised during the initial interview required further clarification. The interviews ran between 60–75 minutes in length; repeat interviews were 20–30 minutes in length. All interviews followed a semi-structured interview format. The interviews were recorded digitally and included the maintenance of my field notes.

To provide authenticity to the data, I applied a semi-structured interview protocol that included the following elements. First, I only used a topical landscape to

provide an interview with a structure of topic areas I wished to address. Applying this structure gave the interviewee the ability to lead the discussion on those topics in whatever direction they wished (see Appendix 3). Second, throughout the interview process, I confirmed with the interviewee that my interpretation of the events and incidents that they raised were the same as mine by stating my interpretations. Finally, the interviews were recorded, offering me access to direct quotes by my interviewees. These quotes provided the interviewee's words to compare with my interpretation of the interviewee's comments.

Semi-structured interviews occurred after I had completed the participant observation of 12-monthly focal group meetings. I timed the interviews to occur after the participant observation phase of my research to decrease the possibility the halo effect developing from having the interviews occur before the participant observation sessions (Nisbett & Wilson, 1977). The interviews provided data from three sources: seven members, two ex-members, and two individuals who were not members but interacted with the focal group on occasion during their monthly meetings. The two visitors were the head of school and an [external program provider]; they each attended one group meeting. One ex-member was interviewed via telephone. Two members were not interviewed because one left the group and eventually the country just before the interviews commenced, and the other member did not respond to interview requests.

Historical Documents

The types of focal group historical data that I originally planned to access were written documentation and past recordings of group meetings. The practice of recording group meetings was not consistently followed, with four recordings known to exist. However, I had failed to outline my request to examine historical documents and past group meeting recordings within my initial informed consent. I subsequently requested access from the group to both data sources. At a monthly meeting, this request was discussed in my absence and voted on, resulting in the group allowing me access to written historical documentation but not to the group meeting recordings. The rationale for this exclusion was that recorded meetings

involved some staff who were no longer a part of the focal group, raising concerns about their lack of informed consent.

Being granted access to the historical documentation, I arranged with the documents' 'gatekeeper', for a time and place to discuss and review those documents. The gatekeeper was the original focal group leader and main developer of [First Program] award during the inception of the group. When we met, the gatekeeper had already filtered through all the historical documents and presented me with those she deemed relevant for my research. The gatekeeper's review and selection of which historical documents I could use for this study impacted the sufficiency of my research. The lack of sufficiency was born out when I reviewed the documents I received and found they did not include documentation that recounted the system shocks the group experienced and were later confirmed during two interviews.

The historical documents that I examined were past meeting minutes, emails, letters, focal group development documentation, group marketing material, and handwritten notes by the gatekeeper. Upon review of the written documents, I sorted them by month, starting with January 1995 through to October 2005. The group initially held bi-weekly meetings for the first four months and then moved to monthly meetings. Meeting agendas had corresponding meeting minutes and attached documents that were presented during meetings.

The documentation that was related to the creation and development of the focal group was found within the group meeting minutes, emails between group members, and letters to various parties involved in the inception and evolution of the group. The sorted documents were scanned and converted into a Word format to allow line-by-line coding by the analytical software MAXQDA 11 Plus (MAXQDA 11 Plus, 2015). Included in the documentation was a historical review of the group's development process, that included an outline of who was the accreditation body for the group's [First Program] award along with a SWOT analysis (initial strengths, weaknesses, opportunities, and threats) of the award performed by the gatekeeper (see Appendix 1).

3.9. Interpretive framework

Preparation for Analysis

The transcription of the digitally recorded focal group meetings and the interviews were done by a professional transcriber, following a transcription guide that I provided (see Appendix 2). The guide was to ensure that the transcriber understood the transcription format I required. However, upon review of my initially transcribed recordings, several transcription errors were present, dialogue was missing, dialogue was attributed to the wrong speaker, and several inaudible passages were noted. To rectify these issues, I re-transcribed each of my first five transcribed participant observation sessions and found another professional transcriber service.

I did find a professional online transcribing service that proved very accurate and had timely service. I still reviewed all my transcribed material against the digital recording to ensure that the material was verbatim and found no errors upon review. When I reviewed my transcribed material, I performed precoding to provide a more accurate simulation of the focal group's interplay. The precoding was the addition of explanatory codes written into the transcribed material that informed me of the group's discussion mechanics. The precoding used was [OS] Over Speak, [JI] Jump In, [UT] Unfinished Thought, [AF] Attempt to Finish Thought, [SB] Side Bar and [IS] Inaudible Statement (see Appendix 2).

To organise and structure my data, I choose to use a computer assisted qualitative data analysis (CAQDAS) software package, a commonly used qualitative research tool. The software package MAXQDA 11 Plus (MAXQDA 11 Plus, 2015) was selected due to its ability to support the interpretive framework utilised by CGT methodology (Charmaz, 2010)—an interpretive framework that supported my use of inductive reasoning that relied upon “a systematic approach to the qualitative analysis” (Saillard, 2011, p. 18) of data collected from multiple sources that change over time (Charmaz, 2010). MAXQDA 11 Plus also provided sufficiency, with its capacity of addressing multiple data sources to confirm or disconfirm developing codes, central categories, or concepts (MAXQDA 11 Plus, 2015).

The data consisted of 12 monthly meetings that generated 9,600 lines of transcribed material; 11 interviews provided approximately 5,500 lines of transcribed material.

Beyond the transcribed material, I was provided with 61 historical documents that were a combination of emails, letters, meeting minutes, and a program review. The 12 monthly meetings generated 24 pages of field notes along with 24 documents, composed of meeting agendas, minutes, and related presentational documents. The transcribed material, historical documents, field notes, and meeting presentational documents were uploaded into MAXQDA 11 Plus (MAXQDA 11 Plus, 2015).

The structure of the analysis used the coding paradigm of CGT to form the central categories that led to the development of theoretical propositions. My data was initially organised and structured through the use of Cooksey's (2001) CSDI into manageable focal groups. Subsequently, I used MAXQDA 11 Plus to further organise and structure my data into open, focused, and theoretical coding in preparation for analysis (MAXQDA 11 Plus, 2015). MAXQDA 11 Plus facilitated transparency in my data analysis through its ease of demonstrating the linkages between developed codes and the data (MAXQDA 11 Plus, 2015).

Coding

Open coding. Coding began with the importing of all data sources as documents into MAXQDA 11 Plus and a line-by-line analysis of each document, deciding which lines to attach code to that reflected my interpretation of what a line represented. The goal of open coding is identifying concepts that eventually coalesce into central themes. Open coding was quite non-specific, creating a broad spectrum of interpretation that required repeated analysis before central themes began to emerge. "Line by line coding forces the researcher to verify and saturate categories, minimise missing an important category and ensures relevance by generating codes with emergent fit to the substantive area under study" (Bryant & Charmaz, 2010, p. 277).

The constant comparative method was performed as coding progressed, and initially, data was compared to data at each level of the analytical framework. Constant comparison supported emerging central categories and defined "their properties and dimensions" (Bryant & Charmaz, 2011, p. 277). Initially, I began reviewing my data by comparing data, looking for similarities and differences while acknowledging that my interpretations were based on my prior perspectives.

The comparative process was sequential, comparing earlier data with data that occurred later in my collection process, which began to coalesce and emerge into central categories with multiple sub-categories, providing a higher level of abstraction. The comparative method also recognised coded data that did not affiliate with other data and became redundant. Those major central categories were represented by dense, rich data support, reflecting the constructivist view of theory that is not only grounded in the data but is equally a product of the researcher's interpretations of that data (Charmaz, 2010).

Transcription of digital recordings required a two-phase open coding process, initial review of all the audio recordings followed by a review of the transcription documents. The documents generated by each focal group meeting was an agenda, minutes and agenda supporting documents were coded as they related to events or incidents that occurred during a related meeting. Historical documents offered a one-dimensional insight into what occurred during the focal group's past and open coding was based on the occurrence of events or incidents. Interview transcriptions were coded in a similar fashion to historical documents guided by my interpretation of which events or incidents that occurred in an interviewee's past and present that warranted open coding. Through the use of MAXQDA 11 plus all of my open coding occurred in one place allowing me to interpret the emergence of central categories of focused codes (MAXQDA 11 Plus, 2015).

Focused coding. Focused coding is more direct, selective, and conceptual than word-by-word, line-by-line, or incident-by-incident coding. Saldaña (2013) categorises focused coding as a more streamlined version of the classic axial coding and a type of second cycle coding. The aim of focused coding is to create categories without consideration for their properties and dimensions. A researcher is cautioned not to anticipate the creation of categories that have well-defined parameters that are populated with unique elements. Dey (1999) emphasised that elements could and will belong to multiple categories, where their degree of belonging varies across those categories. Focused coding synthesises and explains larger segments of data "using the most significant and frequent earlier codes to sift through large amounts of data" (Charmaz, 2010, p. 57).

Focused coding occurred naturally as a process of categorising the growing number of open codes into condensed codes that held common meaning, a type of lower-order thematic analysis. I began reviewing my open codes and selected those codes that made “the most analytical sense to categorise” my data in the most incisive and complete manner (Charmaz, 2010, p. 58). Focused coding was not a linear process, and as categories began to form, they created, on occasion, a revelation by making data that was implicit explicit in meaning. For example, during a participant observation of a focal group meeting, I became aware that when members either ‘jump-in’ or ‘speak-over’ another member’s discussion, it was not just a product of how their meetings were run but evidence of a struggle for group leadership during a discussion.

The process of focused coding was not passive but required my active involvement in the interpretation of the open codes. Active interpretation garnered new analysis avenues that facilitated a higher level of abstraction. Focused coding afforded me the ability to move across my multiple data sources and through the constant comparison method, created increased code density that provided greater utility. Focused codes were continually refined when I iteratively compared them with my data.

The focused coding that emerged from the historical documents reflected central themes related to the unfolding story of the focal group’s past. The historically focused coding provided an understanding of the historical context used by the group to guide the social processes that I observed over a 12-month period. The meeting transcriptions and related material offered open coding that I interpreted to represent the focal group’s current and emerging dynamics. The focused coding provided by the field notes either supported or denied the central themes that emerged from the meeting transcripts. The open coding from the interviews provided central themes of the role the group members played in the dynamics demonstrated by the focal group.

Theoretical coding. Theoretical coding examines the relationships that exist between focused codes. It was through these relationships that my focused codes were organised into central categories. Miles and Huberman (1994) viewed the

creation of those central categories as part of “the ladder of abstraction”, where different levels of coding displayed more interconnectivity within the data (p. 92). The interconnectivity reveals patterns and relationships that become apparent between focused codes, forming the basis for the emergence of my theoretical propositions.

Central categories emerged from the data, initially through open coding and refined through focused coding (Charmaz, 2006). The refinement process involved the recognition of identifiable relationships between open codes that led to the grouping of these identified open codes. These open-code groupings grew, eventually emerging as central concepts. For example, as the open codes of ‘jump-in’ or ‘over speak’ (instances where a lack of turn-taking occurred) began to appear in numbers, through focused coding, they were grouped into the central category of ‘hijacking’. As these central categories continued to emerge, some offered more analytical insight into group behaviour than others, and these categories became theoretical coding (Charmaz, 2006).

Theoretical coding offered the ability to make my analysis more coherent and comprehensible. For example, the occurrence of ‘hijacking’ became identifiable within a specific set of circumstances and was repeated by a few group members. The development of the central categories was not driven by predetermined parameters but was the result of the emergence of several focused codes that represented concepts that were grouped together based on their similarity.

Memoing

Memoing in its basic form is to capture an idea that has been sparked by an incident in the field (Glaser & Strauss, 1967) and can occur at any point during the analysis (Charmaz, 2006). Memoing was particularly beneficial during focused coding, providing direction for central category creation. Charmaz (2006) viewed memo writing as freeing the researcher to record their conjectures about categories as they occur. Once recorded, a researcher can return to the data to see if the data supports their conjectures. Memos not only acted as indications or support for developing central categories; they also served as indications for my theoretical propositions. Memoing was a point of social construction between me and my data,

where my memos reflected my thoughts on my interpretation of what a data segment represented.

Through this social construction, I became more self-aware and reflexive of my coding and category development. Memoing provided milestones that I used to direct the emergence of my categories and eventual theory development. Memoing was a reflective process where I had to justify my interpretation in view of my preconceptions, asking myself why I interpreted a segment of data as I did, and if I was remaining close to my data or relying more on my preconceptions of the data (see Appendix 8). Locke (2001) viewed this as a good balance of analytical and intuitive thinking in action.

3.10. Theoretical Sampling and Saturation

Theoretical sampling is the point where the researcher fills out the properties of their major categories. Memo writing led me directly to theoretical sampling, where I began to refine my categories into theoretical categories that formed the basis for my grounded theories. My memos flagged incomplete categories and gaps in my analysis, which, through theoretical sampling, prompted me to predict where and how I could find the required data to fill out those categories. Charmaz (2006) noted that a researcher would develop hunches about where to find missing data due to the previous coding. Coding the new data and then comparing those codes with existing codes and emerging categories creates more robust categories that offer more clarity to the relationships between categories.

Theoretical saturation occurs when the collection of new data no longer offers new theoretical insights, or properties, for central categories (Charmaz, 2006). Glaser (2001) viewed saturation in a more sophisticated manner:

“Saturation is not seeing the same pattern over and over again. It is the conceptualisation of comparisons of these incidents which yield different properties of the pattern until no new properties of the pattern emerge. This yields the conceptual density that when integrated into hypotheses make up the body of the generated grounded theory with theoretical completeness.” (Glaser, 2001, p. 191)

Saturation from this perspective forms the basis for treating theoretical concepts in grounded theory, raising theoretical categories to an abstract and general level while maintaining their connection to the data (Charmaz, 2006). However, when does a researcher know they have reach saturation? Glaser (2001) demands are that researcher continue sampling until their categories are saturated, despite the sample size. A study using a small sample size can raise questions regarding their findings not reflecting saturation. Saturation can be quickly reached when the research questions asked are simplistic, not requiring a great depth of analysis.

The notion of saturation has been open to multiple interpretations; most are misleading (Morse, 1995). Dey (1999) took an opposing view to Glaser through the meaning and consequences of saturation. The meaning of saturation is not the exhaustive coding of all a study's data but relies on a researcher's conjecture that saturation has been reached. Categories that did not reach saturation through the data did reach saturation by the suggestion of the data, what Dey (1999) calls "theoretical sufficiency" (p. 257). Dey (1999) also wondered if reaching saturation as Glaser (2001) defines a point where no further analysis occurs, making saturation a box to be checked off a researcher's 'to-do list' before moving on to the next task.

I concur with Dey's (1999) view of saturation: that it is attained based on a researcher's conjecture, and if questions arise in the future, the researcher can simply return to the data. However, if the development of theoretical categories encounters a 'sticking point', and development is halted, the researcher simply returns to the data, finds a purposive sample, recodes that data, and continues with category development.

3.11. Theory Building

Developed grounded theories need to provide an understanding (Charmaz, 2006) of the relationships between central concepts against a backdrop of extant literature (Strauss & Corbin, 1997). Theory development was initiated with the creation of the first open code, progressing through to theoretical coding, which led to the development of theoretical propositions—propositions based on the "interpretation of the studied phenomenon. Interpretive theories all for indeterminacy rather than

seek causality and give priority to showing patterns and connections rather than to linear reasoning” (Charmaz, 2006, p. 126).

My interpretive theory aims to make a studied phenomenon a concept that is understood in abstract terms (Charmaz, 2006) by providing an understanding of my theoretical claims by outlining their scope, depth, power, and relevance, making the reader aware of the social construction my findings represented through the reflective acknowledgement of my position as a researcher, where I provide a theoretical proposition(s) that is not constrained by convention but driven by my data.

My theory(s) provides a high level of authenticity that was reflected throughout my methodology, allowing me to compare and contrast with the extant literature with a degree of confidence (Charmaz, 2010). The overarching premise that was applied was to present a socially constructed understanding of the studied phenomena based on the shared experiences and relationships between myself (the researcher), the focal group, and other data sources (Charmaz, 2006).

3.12. Conclusion

This chapter has provided the reader with my application of the CGT methodology and how I addressed issues associated with this methodology. I applied the empirical approach of case study research to investigate a focal group's interactions both within and across its contextualised environment in depth while accounting for adaptations that occur over time. An embedded case study approach allowed me to research a naturalistic group in situ, where the boundaries between phenomenon and contexts were not evident. The case study approach allowed me to explore a smaller group embedded in a larger organisational context, enabling me to concentrate the focus of the research and apply a multimethod research approach to data collection. The use of multimethod research provided me with data from multiple sources that supported my inductive reason approach to my analysis using constructivist GT.

Through the application of CGT, I sought to utilise the strengths of both Charmaz (2010) and Glaser and Strauss (1967) perspectives on GT, where the needs of my

research were the ultimate guide. In seeking to answer my research questions, my use of a constructivist approach to GT met those requirements, demonstrating a higher reliance on Charmaz (2010) CGT perspective. The strength I found with Glaser and Strauss (1967) was in their view of research procedure when performing open coding. Evaluation criteria for this study, presented in Chapter 1, were evidenced within my methodology, presenting the reader with a high degree of rigour. In the proceeding chapter, I will unfold the multiple data sources to provide an understanding of how dynamics emerged from the group over the course of 12 monthly meetings while they experienced changing contextual circumstances.

CHAPTER 4

ANALYSES AND THEORY DEVELOPMENT

“your audience will look for a tight connection between your research questions, the data themselves, and the story that emerges from analyses of those data.” (Cooksey & McDonald, 2011, pp. 493-494)

4.1. Introduction

In the previous chapter, I provided a description and justification of the methodological approach I used to collect data from multiple sources for analysis that would allow me to address my research questions. The outlined approach supported the inductive reasoning of CGT: to provide an understanding of a focal group 's dynamics over time in response to changing contextual circumstances (Bryant & Charmaz, 2010; Charmaz, 2006). I detailed the practices and procedures of multimethod research data collection and analysis used to explain the emergence of group dynamics over time and changing contextual circumstances. I also outlined my use of MAXQDA 11 Plus to assist in data management, analysis, and theory-building, and evaluation criteria and ethics were also addressed (MAXQDA 11 Plus, 2015).

In this chapter, findings will be presented that address each of my research questions, focusing on the contextualised group behaviour and dynamics. I begin with a review of the focal group's historical trajectory from the perspectives provided by the historical documents and from two current members who have been with the focal group since its inception. I will inform on the focal group's dynamics and behaviours displayed as they interact with their contextualised environment over time.

A presentation of the members', visitors', and ex-members' characteristics will be offered, looking at areas of expertise, years' service at the university, length of focal group membership, length of academic career, gender, educational pedigree, country of origin, years in Australia, terminal values, age, and work values cohort (see Table 4.1).

Table 4.1. Participant Description

Member	Areas of Expertise	Years' Service at Institution	Length of Group Membership	Length of Academic Career	Gender	Educational Pedigree	Country of Origin	Years in Australia	Terminal Values ⁴⁵	Age	Work Values Cohort ⁶
Ann (member)	First Prg. (0-5) years	14	14	44	F	PhD (First Prg.), University of Queensland, Brisbane Masters (Initial Dev., Fam./Rel., Home Ec.), San Jose State University, CA, USA Bach. (Arts, Fam./Life, Home/Ec.), San Jose State College, CA, USA Std. (Teaching Cred. First Prg.), University of CA at Santa Cruz, USA	USA	44	Inner Harmony, Equality, Accomplishment, Exciting Life	60s	Boomers
Jean (member)	Leadership	13	13	13	F	Grad. Dip. (Grad. Dip. Ed.) University of Queensland Dip. (Teach)University of Queensland Dip. (Ed. Mang.) Canberra College of Advanced Ed. Cert. (Ed. Mang.) Wagga Wagga College	Aus.	Birth	Accomplishment, Inner Harmony, Social Recognition, Friendship	60s	Boomers
Katie (member)	First Prg. (0-5) years, First/Sec. Prg.	7	7	7	F	Masters (Teach)Field Chair (0-18) years (Hons) University of Gloucestershire Bach. (Adv. Studies in Ed.) University of Bristol Dip., (Ed.) Cert. (Teach)University of Roehampton	Eng.	7	Member who did not respond to interview requests	60s	Boomers
Lori (member)	First Prg., (0-8) years,	8	5	8	F	PhD (Teach)University of New England	Aus.	Birth	Inner Harmony, Equality,	40s	Xers

⁴ Terminal values that a group member has expressed during their interviews.

⁵ (Rokeach, 1973, p. 28)

⁶ (Robbins et al., 2007, p. 121)

Member	Areas of Expertise	Years' Service at Institution	Length of Group Membership	Length of Academic Career	Gender	Educational Pedigree	Country of Origin	Years in Australia	Terminal Values ⁴⁵	Age	Work Values Cohort ⁶
	Soc. of Ed.					Master (Ed. Mang.) (Hons), University of New England Bach. (First Prg.) W.A.C.A.E. Dip. (Teaching Prim. Ed.) Aquinas Teachers College, Ballarat			Accomplishment, Exciting Life		
Barb (member)	First Prg., Creative Arts/Teach Music/Teach	3	1	1	F	PhD (incomplete) (First Prg.) University of New England Dip. (Creative Arts) and (Music) University of Queensland	Aus.	Birth	Inner Harmony, Happiness, Social Recognition	40s	Boomers
Betty (member)	First Prg. (0-8) years, Arts/Teach (0-18) years	11	11	11	F	PhD University of Alberta, 2002. (Art, Design, CT/Ed.)	Eng.	14	Accomplishment, Inner Harmony, Exciting Life	60s	Boomers
Jane (member)	Human Science	4	4	22	F	PhD (Human Science) Paeroa College, Paeroa, New Zealand Master (Arch.) Paeroa College, Paeroa, New Zealand	NZ	22	Accomplishment, Inner Harmony, Social Recognition	60s	Boomers
Jenny (member)	First Prg., Aboriginal Studies, Ed.	13	13	18	F	PhD University of New England Masters (Teach) University of New England Bach. (OT.) University of Queensland Grad. Dip. (Cont. Teach) University of New England	Aus.	Birth	A member of declined to be interviewed	60s	Boomers
Sue (visitor/ex-member)	First Prg., (0-8) years, Teach (0-12) years	5	5	13	F	PhD (First Prg. Maths) University of Alberta Bach. (First Prg.) University of Alberta Dip. (First Prg.) University of Alberta	Can	5	Exciting Life, Security, Friendship, Freedom, Accomplishment, Inner Harmony, Equality	50s	Xers

Member	Areas of Expertise	Years' Service at Institution	Length of Group Membership	Length of Academic Career	Gender	Educational Pedigree	Country of Origin	Years in Australia	Terminal Values ⁴⁵	Age	Work Values Cohort ⁶
Joan (member)	Admin.	12	11	0	F	High School	Aus.	Birth	Self-respect, Friendship, Equality,	50s	Veterans
Sally (visitor)	ESL Prg.	10	10	0	F	Masters (Asian Studies) Masters (Thai Studies) Masters (Teach) Bach. (Nursing)	Aus.	Birth	Inner Harmony, Social Recognition, Equality, Exciting Life, Freedom	40s	Boomers
Liz (ex-member)	Curr. Studies, First Prg. (0-8) years	3	3	6	F	PhD (Curr. Studies) University of Alberta Masters (First Prg. Maths) University of Alberta Bach. (Teach) University of Alberta	Aus.	Birth	Inner Harmony, Self-respect, Equality, Happiness	30s	Boomers
Fred (visitor)	First/Sec. Prg.	5	2	25	M	PhD (Maths) La Trobe University Dip. (Maths/Sc.) La Trobe University Masters (Sc.) Curtin University Bach. (Arts) ANU Canberra	Aus.	Birth	Accomplishment, Inner Harmony, Wisdom, Exciting Life	50s	Xers
Mike (visitor)	Ed. Psych. of Teach. and Learning Processes	4	1	7	M	PhD (Ed. Psych.) University of Sydney Bach. Ed. (Hons, 1st Class)	Viet.	7	A member of declined to be interviewed	30s	Boomers

The focal group consisted of eight members: Joan, Lori, Jenny, Betty, Barb, Jane, Ann, Jean, and Katie, there were four visitors, Fred, Mike, Sally, and Sue with one ex-member Liz. Sue was a member of the group for the first month of the research before she left the group, returning as a visitor on three occasions

An analysis of participants will explore how their member characteristics influenced the focal group's dynamics as revealed through their related behaviours. The analysis of the group's historical trajectory and the member characteristics will provide the context to understand the group's dynamics, and behaviours as the group interact both within and across its contextualised environment, over time.

Analyses will encompass the group's discussion format, systems shocks, and inter-member relations (social network analysis). Upon completion of the analysis, I will offer an understanding of the group's dynamics and how those dynamics were adapted and emerged as the group experienced changes in its contextualised environment through a series of theoretical propositions. Each data source used to support my analysis has a designated colour code (refer to Table 4.2).

Table 4.2. Data Source Colour Code Table

Data Source	Font Color
Historical Documents	Red
Participant Observations	Green
Interviews	Black
Field Notes	Light Blue
Meeting Minutes	Orange
Monthly Agenda	Purple

4.2. Historical Documents Perspective of the Group's History

The focal group had the responsibility to develop, create, and provide [First Program] unit instruction; it was conceived in 1995 and formed in 1997. The group offered the complete [First Program] award by 2000 as a part of the [Bachelor of Education] award and [Bachelor of Teaching] award. All quotes taken from the group's historical documents will appear in red text. The award was created to meet an identified need revealed by a quality assurance review and in a report

commissioned by the teachers and institutions working within the Australian education system (Doc 20-4, Line 17).

The 'quality assured' status is based on this whole internal self- study report, including the particular review by the [Department of Education] chronology and documented evidence of planning, negotiating, recommending, deciding, developing, approving, implementing and finally teaching the revamped [Adv. Studies in Education] [award] and [Education Mang.] [award] (Doc 20-4, Line 17).

The units⁷ offered by the focal group in [First Program] award comprised the last two years of a four-year [First Program] award; the first two years required the completion of a college award provided by external vocational program provider in the [First Program] award area (Doc 20-4, Line 77).

... researched, planned, completed and coordinated numerous tasks that resulted in the development and approval of a third- year of the [First Program] award which builds upon an external vocational program provider's two-year Associate Dip. /Dip. in [Adv. Studies in Education] (Doc 20-4, Line 77).

In 1997, the focal group was formed, consisting of four members, with the goal of creating, developing, and offering the [First Program] units. The interim award development leader was from the school of education; the acting program coordinator for the award was seconded from an external vocational program provider in [First Program] award discipline (Doc 20-4, Line 93).

1997 Dr Freeman (course development leader from School of Education Studies), Ms Frank (acting Program Director of the [First Program] award, from external vocational program provider in [First Program] award) Ms Smith and Ms James (existing lecturers; helped with research, course and unit development ideas) (Doc 20-4, Line 93)

During 1997, an industry reference group was formed to represent the interests of the [First Program] award industry and provided guidance towards the focal group's development of the [First Program] award (Doc 15-9, Line 17).

The [First Program] award Industry Reference Group will provide advice and information to the University on relevant professional and industry trends and requirements to strengthen the [First Program] award teacher education

⁷ A unit is a discrete entity of study within a subject area that when structured in combination, called a course, leads to a student receiving an award (Curtin University, 2016c)

programs being offered through the University to ensure they are meeting the needs of the profession and the employer group (Doc 15-9, Line 17).

As the creation and development of [First Program] units were progressing, the focal group aimed to offer its first units in 1997. However, the group was faced with concerns from the Quantifications Advisory Committee (QAC) regarding the academic quality of the group to create, develop, and offer [First Program] units. The QAC concerns caused a delay in offering the [First Program] units (Doc 15-19, Line 5).

The three representatives were extremely concerned that the quality of the fledgeling program at the program is safeguarded. It was pointed out that there is already criticism of the program and there are people who are waiting to find evidence for further criticism. Furthermore, students who enter our program are already experienced and will be critical of units that are not written and taught by people with the requisite formal qualifications and experience in [First Program] award (Doc 15-19, Line 5).

QAC was created in 1997 by the Department of Education to ensure that the academic staff developing and providing [First Program] award instruction had the required educational background and experience to fulfil those roles (Doc 15-9, Line 4).

TERMS OF REFERENCE To assess whether the qualification or training and experience of persons seeking approval Authorised Supervisor and Primary Contact Staff member in the state services are in accord with the requirements of the Regulations of the State Act (Doc 15-9, Line 4).

The QAC was composed of 13 members, each representing a different constituency within the Australian Education field (Doc 15-9, Line 16).

The committee comprises representatives of 13 organisations determined by the Minister (Doc 15-9, Line 16).

QAC's concern over the academic quality of the focal group was reaffirmed through a letter from QAC to the head of school for education in early 1998. The concerns from QAC placed the professional status and function of the group in doubt (Doc 15-70, Line 3).

The issue of the integrity of the [First Program] award program at the [University] was addressed. The reason for this concern derives from the very real potential for some units to be written and taught by people who do not

have a [First Program] award background, i.e., an intimate knowledge of, and experience in, the industry. They claim that the credibility of the program depends upon the staff, particularly the staff who are the nucleus of the developing [First Program] award group, to all have this [First Program] award background and experience (Doc 15-70, Line 3).

The focal group's response to QAC's concerns was to rationalise them away and blame the problem on the university's inability to attract qualified academic staff. The group was still faced with hiring contract staff that met QAC requirements to develop and teach the [First Program] award (Doc 22-3, Line 16-11).

There is a suggestion to obtain contract relief staff, and it is a challenge to find suitably qualified staff (Doc 22-3, Line 16-11).

Faced with the need to improve the academic quality of the focal group, Ann was hired as the program director for the [First Program] award, along with Ms Greene, Ms Smith, and Mr Frank as lecturers in 1998 (Doc 20-4, Line 94).

1998. This program began with seconded and part-time staff. Ms Frank (acting Program Director to July, teaching unit), Ms Smith (teaching and writing units), Mr Frank (started Feb, one-year contract lecturer), Ms Greene (started Aug, lecturer), Associate Professor Ann (started Aug, Foundation Program Director & Lecturer) (Doc 20-4, Line 94).

The three new lecturers had been hired after they successfully met university requirements while disregarding the concerns of QAC (Doc 15-77, Line 29-31).

ADVERTISEMENT

Lecturer/Senior Lecturer (Level B/C) in Early Childhood Education (Tenurable; 1 or 2 positions, 1 position may be at senior lecturer level) (Doc 15-77, Line 29-31).

By September 1998, the senior management of the university called a strategic planning session. The main item on the meeting's agenda was to direct the focal group to complete a SWOT analysis and to integrate that analysis into unit development, award timelines, and award type, to be developed (Doc 15-10, Line 43).

The Dean has asked that a Strategic Plan is developed for the [First Program] award at [University]. The next gathering will be a combination of a regular meeting and a 2-hour workshop about the development of future courses. SWOT Analysis- identifying strengths, weaknesses, opportunities, threats for the

[First Program] award at [University] use worksheets for brainstorming and recording

Some course options-

- *identify others.*
- *Focus of courses*
- *Children from (0-5) years or Children from (0-8) years*

Timelines for courses

Revise' current courses- 1999, 2000, 2001, (include Associate Dip. to Dip.)

developing/beginning [First Program] award courses- 2000, 2001 (Doc 15-10, Line 43)

Ann as the Program Director for the focal group led this effort despite lacking formal management training (recall Table 4.1). The SWOT analysis was broken down by on-campus and off-campus students and was used to assess the strengths and weakness that the [First Program] award had internally and to assess its opportunities and threats that existed externally to the award (R. Griffin, 2005) (see Appendix 1). With the completion of the strategic plan, the group sought to offer their first [First Program] unit offerings in the first and second semester of 1998. The unit offerings occurred without the group receiving staff approval from QAC (Doc 20-4, Line 78).

The first few units for [First Program] award were offered from Semesters 1 & 2, 1998 (Doc 20-4, line 78).

During 1998, [First Program] units had 120 students enrolled (Doc 15-74, Line 10).

160 offers were made with 140 acceptances. Approximately 120 students currently enrolled (Doc 15-74, Line 10).

By March of 1999, the focal group had not developed the required units to enable them to offer a complete [First Program] award as planned by the start of 2000. The shortfall was blamed on the shortage of staff resources to develop and teach the new units, placing added stress on the group (Doc 16-6, Line 10).

...continuing the writing and editing of unit notes and resources for the remainder of the [First Program] units and all of the [First Program] award, this begins in 2000. Very large numbers of students have entered the [First Program] units for 1999, and this fact is challenging the group's roles and responsibilities on a weekly basis. This means our current workload is too high to assure high-quality service to students and thus is reputation is at risk (Doc 16-6, Line 10).

With the growth in [First Program] award enrolment, the focal group membership grew with the addition of a new lecturer, Ms Black, on June 1999 (Doc 16-12, Line 17).

Ms Black has been employed as a lecturer and will commence on 12 July (Doc 16-12, Line 17).

In August of 1999, the head of school received a letter from a Department of Education reporting that their concerns over the academic qualifications of the focal group staff had been satisfactorily corrected; the members now met the requirements of state regulations to work in the [First Program] award field (Doc 14-6, Line 7).

As the Bach. of Teaching [First Program] award and Bach. of Education [First Program] award meet the requirements of the [Department of Education,] regulations, approval is granted for all three prescribed positions stated within the regulations (Doc 14-6, Line 7).

However, the Department of Education went further to outline concerns over the QAC's ability to monitor the qualification, training, and experience of [First Program] award academic staff. The Department of Education stated that it would initiate a review of the role and function of QAC (Doc 16-21, Line 8).

I sincerely apologise for the delay in responding to your request for approval and take this opportunity to inform you that because of the concerns raised in your correspondence, I have initiated a review of the role and function of the Qualifications Advisory Committee (QAC) (Doc 16-21, Line 8).

From the focal group's inception to this point in time, their meetings followed a parliamentary procedure format, with each meeting lasting approximately for one hour (Quinn, Riggs, & Hanson, 1998). Agenda items that required further action were assigned to members to ensure that specific outcomes were met. An example agenda is enclosed (see Appendix 9).

By 2000, the focal group was offering a [First Program] award that was a part of the [Bachelor of Teaching] award and was teaching units into the [Bachelor of Education] award. [First Program] units were receiving approximately 300 applications for enrolment by 2001. The high enrolment placed increased pressure

on the [First Program] award academic staff, and they sought to hire more qualified staff (Doc 17-1, Line 55-57).

*Approximately 300 applications received and selection criteria applied
Offers made to successful students
Advertising and selection of Staff (Doc 17-1, Line 55-57).*

The focal group hired four additional staff, Jean, Ms Brown, Ms Johns, and Ms Copper, to assist with the growing demand for [First Program] unit development and teaching in 2000 (Doc 20-4, Line 96).

2000. Jean, Ms Brown, Ms Johns (started February, senior lecturer) ... Ms Copper (teaching one unit) (Doc 20-4, Line 96).

In 2001, the [First Program] award continued to be developed and grow, with Ann creating a prerequisite unit to fast-track students into the award, offered in the third year. At this time, the focal group lost a member, Ms Black, as noted by the absence of her name for the 2001 staff listing for the group (Doc 20-4, Line 85).

The Bach. of Education [First Program] award changes included: altering entry admission rule from external vocational program provider in [First Program] award two-year qualification (Associate Dip.) or equivalent to an Australian external vocational program provider in [First Program] award qualification... suggesting study progression model of one unit a semester for students working full-time, with two units designed as 'fast track'; adding a new prerequisite (no co-requisite) unit... to create a new initial prerequisite unit for assisting students with the transition to University study and academic literacies embedded in a [First Program] award professional context; (Doc 20-4, Line 82).

By 2002, the [First Program] award became a part of the school of education, and a new master of [First Program] award was approved. The [New Dual Degree] award was to expand the employment opportunities for its graduates through a collaborative effort between [First Program] award and the [Department of Education] (Doc 20-4, Line 86).

The [First Program] award program became part of the new School of Education. The Master of [First Program] award, ... was developed and approved ... Early in the year, the [First Program] award program team began major work and negotiations on gaining a 'Primary Pathway' career option within the [Department of Education & Training] for [Bachelor of Teaching] [First Program] award and [Bachelor of Education] [First Program] award graduates... (Doc 20-4, Line 86).

During this year, the focal group membership grew to include Betty and Lori (Doc 20-4, Line 98).

Betty (started October, lecturer), Ann [1\2-time [First Program] award as FEHPS Associate Dean (T& L)], Lori (contract lecturer- semester 2) (Doc 20-4, Line 98)

In the following year, 2003, the [First Program] award was being offered as part of the [Bachelor of Education] award. The [First Program] award was already being offered through the [Bachelor of Teaching] award, and this required the deletion and addition of a few units to allow the [Bachelor of Education] and [Bachelor of Teaching] awards to be synchronised. During this year, another member was added to the focal group: Jenny (Doc 20-4, Line 87; Doc 20-4, Line 99).

Master of [First Program] award was offered for the first time. Changes were submitted and approved by [University] for creating a 'Primary pathway' within the [Bachelor of Teaching] [First Program] award and [Bachelor of Education] [First Program] award [including minor and major changes to units, designing a few new units and deleting a few] for beginning in 2004... (Doc 20-4, Line 87).

.
.
.

... Jenny (started July, lecturer) ... (Doc 20-4, Line 99)

The focal group membership was stable over 2004, with the group providing a [First Program] award summer institute and beginning the process of meeting the 'Primary pathway' accreditation outlined by the [Department of Education] (Doc 20-4, Line 88).

The first [First Program] award Summer Institute with the theme 'Engaging ... Minds- The Project Approach' (Betty, convenor) was held on campus with about 30 professional attending from around Australia. Undertook further course/unit development to meet department of education accreditation requirements for Primary Pathway offering; first offering and teaching of new and modified units based on [Department of Education] accreditation (Doc 20-4, Line 88).

By 2005, the focal group completed a unit audit to ensure compliance with a rural and regional indigenous focus. A new contract academic staff member was added to the group—Ms Gerry—bringing the group membership to six (Doc 20-4, Line 101).

Jean (Program Coordinator), Ms Johns (study leave from July 2005 to 1 Feb 2006), Betty, Jenny, Associate Professor Ann, Ms Gerry (contract lecturer semester 1 & 2) (Doc 20-4, Line 101).

In 2006, Ann and Jean performed a quality assurance internal self-study report of [First Program] award. The focal group membership was stable over the course of 2006, and the review generated several recommendations that fell into three categories: overarching, courses, and units. The overarching recommendations included the inclusion of the group in the Course Review Implementations Committee, which was a function performed by the [First Program] award Reference Network. Included in this section was the recommendation for the group to have a brainstorming session regarding future course directions (Doc 20-4, Line 560-570).

The [focal group] approach the [First Program] award Reference Network to act as a 'member' of the Courses Review Implementation Committee. The [focal group] arranges with Dr Phil, TLC, to facilitate a brainstorming session for developing a 'project map and plan' to advance the issues, ideas, and recommendations highlighted during the self-study process and in this report (Doc 20-4, Line 569-570).

The recommendations also included the need for [First Program] awards to increase their course strength by attracting stronger post-graduate students through the provision of better marketing of the academic skills held by the membership (Doc 20-4, Line 574).

The [focal group] explore how to invite best consistently strong [Bachelor of Education] students/graduates to undertake postgraduate studies at [university] that compliment staff research strengths and areas of interest (Doc 20-4, Line 574).

In 2007, the university's senior management had an internal review of the [Bachelor of Teaching] [First Program] award. The internal review resulted in the rejection of the quality assurance internal self-study report performed the year before by Ann and Jean (Doc 21-44, Line 246).

I am reporting issues raised recently at University senior management. Following the withdrawal of the synthesis of the [First Program] award Course QA Self-study Report from University senior management on 5 February and referral back to the Faculty, I met with you, the Dean and the Head of School Education to discuss the Dean's concerns about the Indigenous section as attached below. The Dean requested a stronger strategic statement and plan for Indigenous education and issues as they relate to the [Bachelor of Teaching] ([First Program] award) ... for purposes of this QA review and beyond that, for the future development of the [First Program] award Program in general (Doc 21-44, Line 246).

Ann did not take the rejection of the quality assurance internal self-study report well. She felt ambushed by the rejection of the report, which occurred unannounced during a meeting of senior university management. In Ann's eyes, this rejection had dealt a blow to her professional status (Doc 21-44, Line 432).

Thanks for the thoughts, Jack. Oh, yes, I was not impressed and felt the situation was basically inappropriate. I must admit that I expected to see a brief cover memo from the Faculty T&L Com' and/or AB T&L Com. It with my memo. Because this was an internal only review, no external panel. And, because of our sincere and deliberate [focal group] commitment to and processes of continually updating and adjusting our courses since 1998 (clearly documented in the report), I felt this represents an insult to us (Doc 21-44, Line 432).

The quality assurance internal self-study report was found to be lacking in the following thirteen areas (Doc 21-44, Line 22-88)

*... Investigating accreditations of our [First Program] award
 ... [award] qualifications ...
 ... changing grading system ...
 ... refining field- based supervisors' ratings of students` professional experiences
 ... adjusting [Bachelor of Education] course admission criteria ...
 ... reshaping annual residential school each year from students' evaluations ...
 ... redefined; professional portfolio work ...
 ... building on core and elective units individually and collectively ...
 ... incorporates new generic learning outcome for all [First Program] units ...
 ... update and extend students' 'Professional Toolkit' ...
 ... increasing student enrolments nationally and internationally ...
 ... timelines for all outlined actions and identifying relevant ...
 ... not holding an external review panel ... (Doc 21-44, Line 22-88)*

Ann responded on behalf of the focal group to senior university management's review of the quality assurance internal self-study report. Ann presented the group's response during a senior university management meeting in March of 2008. She outlined how the initial quality assurance internal self-study report had been revised to address senior university management concerns. Ann went further to reason that the areas of weakness noted in the [First Program] award were caused by circumstances beyond the control of the group (Doc 22-2, Line 7-8).

The sheer passage of time from beginning the internal self-study to acceptance by [senior University management] is an example of best-laid ideas and plans and then overtime changes within and beyond University influencing each other

Furthermore, since April 2007, numerous changes and challenges at University and the world beyond have influenced members of the [focal group] and the two courses at the heart of the QA review process. In the last six months, the [focal group] has changed schools, moved offices and adjusted to or prepared cases about various School expectations and processes that vary from before. Beyond the University, teacher education generally has faced a 'clinical climate' of political/election promises, new government expectations, requirements, reporting and funding (State, interstate, Commonwealth), national organisational reports and guidelines... (Doc 22-2, Line 7-8).

In my review of historical documentation related to the focal group, it was apparent that the group dealt with adversity in the form of meeting course development needs (intra-group/intra-organisational systems shock) and having their professional status put in question (extra-group/intra-organisational system shock). The group addressed the intra-group/intra-organisational system shock by increasing their staff resources to enable them to meet the demand of developing and teaching the [First Program] award.

However, by addressing their staffing concerns, the focal group did enable an external shock to be incurred by hiring academic staff that were not deemed qualified to develop and offer [First Program] units by the Department of Education committee QAC. The extra-group/intra-organisational shock represented by the rejection of the group's internal review would have once again placed the professional status of the group in doubt. The group's response to this extra-group shock was to reason the responsibility for their occurrence on forces beyond the control of the group.

4.3. Member's Perspective of the Group's History

The historical perspective from the member's point of view was provided by three members; two had been with the focal group since its inception (Ann and Jean), and one (Sue) had been with the group for six years prior to this study. The program director of the [First Program] award and the formal leader of the focal group, Ann, was hired in 1998 (Doc 20-4, Line 94) and facilitated the group's completion of the SWOT (recall Table 4.2). The SWOT formed the basis for the [First Program] award strategic plan to be created in September of 1998 (Doc 14-9, Line 53). The group started developing the [First Program] award by reviewing the existing units within

the School of Education, rewriting units as needed, creating new units, marketing the award, and hiring academic staff (Doc 2, Line 339-343). The quotations that were taken from member semi-structured interviews will appear in black text.

Ann: [pause] to review of what all the units looked like. What was in them and - and how many core and elective and how much [First Program] award [Placement] unit there was and - and all the mater - all the content of - of the three-quarters of the units had to be developed from the time that I arrived.

Keith: Oh, it's quite the work to do.

Ann: And then we - as the numbers went up, we then started to hire other staff, so I was always on the interview panels and helped worked with would have been David Laired initially as Head of School in terms of what the ads look like and what the criteria wer ...

Keith: Mm-hmm (affirmative)

Ann: [pause] and what questions we ask in them (Doc 2, Line 339-343).

Ann quickly became the principal creator and developer of the [First Program] award due to the lack of formal training and experience within the focal group in the [First Program] award discipline (Doc 1, Line 214-218).

Jean: None of us was academics prior to coming here.

Keith: None of you was academics, oh.

Jean: Mm-hmm (affirmative) oh they were later as people came

Keith: Yes.

Jean: but not at the beginning. So, she had to, um, she had to teach us really and support us and she would have ... I can imagine, she would have read everything I think. I don't recall really but, um, but we were ... but we did develop, we did develop it together, and then we go and do the nitty-gritty and bring it back and do the nitty-gritty... (Doc 1, Line 214-218).

Jean was one of the first hires by Ann to develop and offer [First Program] units, despite Jean having not completed her doctoral degree in the [Leadership] discipline but having a professional and personal history with Ann. The development and provision of [First Program] units required academic staff with graduate degrees in the [First Program] award, which Jean did not have with the eventual completion of her doctoral degree (Doc 1, Line 378).

Jean: In the middle, yeah. So, um, yeah so there was Ann and me, there's no one else that around now that hasn't met anyone else for a long time that was there at the beginning. There were ... and I'm just trying to think who was there actually when I came. I think there were only; I

think there were four of us, I think, when I came. Karen and, Gent, I think. I can't give anyone else (Doc 1, Line 378).

As the focal group's formal leader, Ann created close professional bonds with the entire group, starting with having the group meetings occur in her office. These meetings took place in a relaxed, congenial environment, where informal discussions between members were encouraged. Ann fostered group development by creating social interactions outside the university, where the group went on retreats or meetings at her residence for a barbeque (Doc 1, Line 234-236).

Jean: She'd [Ann] would remember, but I don't. But anyway, whatever it was, the University provided that of course anyway. Um, so she would, she convinced them that we needed to have retreats and and that we needed to do them properly. So, we'd go to like Archie's we went one time

Keith: Very nice.

Jean: for 2 days, I think and booked out, they've got a special room beside the restaurant. And we ate, and I feel like it was good food and um, we went there. We went to different places; we use to have a retreat every year (Doc 1, Line 234-236).

Ann was creating a focal group that offered social support to its members, which increased the level inter-member reliance, forming a strong group bond (Forsyth, 2010). Within the structure of the university, the [First Program] award was not a part of the school of education but was a part of a separate collection of awards that conveyed a high level of professional status upon the focal group (Doc 2, Line 361-363).

Ann: And they divided in that way. And [pause] and the Ed Studies school had things beyond teacher education.

Keith: Yes.

Ann: So, in terms of that school, we certainly were highly regarded and ... (Doc 2, Line 361-363).

By January of 1999, the focal group's structure was becoming increasingly more solidified. Members were spending both professional and social time together, and the group meetings were run monthly or bi-weekly depending on need. Jean remembers this time as the fondest time of the group's early years (Doc 1, Line 232).

Jean: I think when we were sitting down, probably the [pause] I can remember never loving marking, so it wasn't, that wasn't my fondest memory of it. Um, but I think when we um, we used to do retreats to plan things they were lovely, you know. We just [pause] and that's part of the University being supportive of us. So, Ann, I think, actually I think Ann was the program manager, it was called at the time, and I've got a feeling that she had a budget to that... (Doc 1, Line 232).

In 2000, the focal group was socially integrated and under the direct guidance of Ann when it incurred a severe intragroup system shock. The shock involved a new member that had taken a personal and professional position that was in opposition to that held by the group. The shock hit Ann particularly hard because she had both a personal and professional relationship with this new member prior to hiring them (Doc 2, Line 501-509).

Ann: Well, I think from the beginning the [pause] the people who came in and whom we had really worked together. Uh, we have had a couple of problem children along the way.

Keith: Mm[pause]hmm (affirmative)

Ann: And one of them did nearly kill me. I mean in terms of mental stress,

Keith: Mm[pause]hmm (affirmative)

Ann: [pause] not[pause] not physically attacking me,

Keith: Yes.

Ann: [pause] but part of that was dealing with the Head of School and the Dean at the time and them being in some ways aware of what all the issues and concerns were but not really stepping up and doing something, so that in the end it took us 18 months, nearly two years

Keith: Mm[pause]hmm (affirmative)

Ann: [pause] to get rid of the person who was a very big problem (Doc 2, Line 501-509).

The member in question was at the centre of the intragroup system shock as they began to work against the focal group, striving to meet their individual needs while not supporting the attainment of group goals (Doc 1, Line 310-320).

Jean: But they were, um, they were, um, they were so supportive, and they gave us that authority, so we just [pause] I don't [pause]. The the issues that we had in our team were about personalities at different times, and we certainly had that, um.

Keith: Yeah. You have one particularly dark time.

Jean: Yeah. We did have. And that was, and that was very stressful, and it meant that we, it meant that we couldn't, um, we couldn't be as collaborative, you know like a meeting. You, you dreaded going to

meetings rather than going, "Oh beautiful, we've got a team meeting". (Laughter) you know, like its sort, uh

Keith: Yes.

Jean: So, in a way it stripped our authority to a point because we couldn't, uh, as a team we couldn't make decisions very well.

Keith: So, you were, you were hampered definitely hampered.

Jean: Oh yeah, it seemed so, almost internally hampered rather than someone else telling us we couldn't do it.

Keith: Yes.

Jean: It would be [pause] we could, we just couldn't get agreements, so we couldn't do it.

Keith: So, so

Jean: So, we couldn't get, we couldn't move forward, and that was really hard (Doc 1, Line 310-320).

The member in question surprisingly received support from the university, with the focal group being held accountable for causing the shock and not taking the necessary steps to attain resolution. The university's position created an extra-group system shock that was added on top of an intragroup system shock the focal group had already incurred (Doc 1, Line 372-376).

Jean: Yeah. I, um, so but, but not before they'd already pulled the wool out from under us, you know, like in a sort of basically told us that we were the problem, you know. Not that they thought we were the problem. It wasn't that; it was more, if there's a workers' compensation claim then you, then it's your fault, you know.

Keith: Mm[pause]hmm (affirmative)

Jean: And, and this is too expensive and, um, so you've gotta give into everything.

Keith: So how do you feel about that?

Jean: Oh, not good but we were very frustrated. But I was, but one of our team, um, was very far more frustrated than [pause] (Doc 1, Line 372-376).

The head of school for the school of education was supportive of Ann's perspective during this difficult time (Doc 1, Line 356).

Jean: Uh, it was, uh, it was sort of like "Don't do anything, like, you know." And we, and so it was, and so we got a lecture on how we had to behave and why, you know, that kind of thing. Not from the head of school, the Head of School was still very supportive about, from the HR, the sort of side of it (Doc 1, Line 356).

The cumulative effect of both system shocks rose to the level of a relationship conflict between Ann and the member in question, where both assumed opposing

positions that were based on personal versus professional differences. The level of distrust that Ann held for this member had reached a point where she warned others how to interact and deal with her on a one-to-one basis (Doc 2, Line 527-531).

Ann: And she tells one story here and another story there and how much she was aware of it or not. Moreover, I kept saying to them ... and again because both of them were males, I kept saying, "Don't ever meet with her by yourself." And of course, her story was whenever they wanted to meet with her about issues, she would object to anybody else being there, and they didn't take the stand ... Well, sorry there's no option here, we're going to have a third person.

Keith: Yes.

Ann: Um, and so ... so the next one solid example of where they did really step up to a mark and follow through on things, and I mean ... I'm not saying it's easy,

Keith: No.

Ann: ... but she was challenging, and it was a difficult position to be in, but those are a couple of the ... the real human resource management weakness issues that made things even worse (Doc 2, Line 527-531).

In response to the system shocks, Ann took medical leave, unable to deal with the building relationship conflict (Doc 2, Line 511).

Ann: And meanwhile I finally ended up going off to a doctor on a Friday and saying I've got to be out of here and I was away on sick leave for a month for stress (Doc 2, Line 511).

The effect of the system shocks on the focal group had led them to cease functioning as a group and splinter. One group member supported Ann during this time, while the remainder of the group focused on meeting their individual needs over group goal attainment by "sticking their heads in the sand" (Doc 1, Line 340-342).

Jean: It was mixed, and the [focal group] split -

Keith: Oh, yeah

Jean: To a degree. Um, so, um, so the pas- I guess the the passive, a couple of passive members of the [focal group], um, but, but have a different position to me obviously. But to me, but they put their heads in the sand, "Well, let's just not go there. Let's not deal with shock, let's not have a shock (Doc 1, Line 340-342).

The lack of support that Ann received from the majority of the focal group had a telling effect on her, where she felt isolated and betrayed by some the members

that she had hired and gone to great lengths to support as they developed the [First Program] award and made them feel a part of the group (Doc 2, Line 557-563).

Ann: [pause] uh, in terms of kind of claiming well. I'll [pause] I'll sit on the fence and kind of support both of you rather than,

Keith: Oh.

Ann: [pause] rather than knowing what this person had done basically wouldn't [pause] wouldn't officially kind [pause] kind of back kind of back me as the program [pause] program director.

Keith: Yeah, Yeah.

Ann: And in terms of my ending up being accused of stressing this other person.

Keith: Oh dear.

Ann: And I was holding to equity and all that (Doc 2, Line 557-563).

Upon Ann's return, the focal group's structure remained fragmented, where she, much like her fellow members, became an isolationist. The member in question was still a part of the group and teaching [First Program] units. The group infrequently met, working separately for much of this time with social interactions between members being discontinued. The structural cohesion built over the past years had crumbled (Doc 1, Line 400-402).

Jean: And we just, really, it was a matter of, um, people had to lick their wounds for a while I think. Um, it was, uh, the people were very stressed by it and, so we, it was the beginning of people not coming into the office and that sort of thing.

Keith: Oh yes.

Jean: You know, there was that, those impacts. And um, having team meetings and, team meetings, which had always been a priority almost, became optional, that kinda, you know ... (Doc 1, Line 400-402).

While these two system shocks were occurring, Ann had deepened her professional and personal relationship with Jean, where they continued to meet, forming a coalition of two, with Jean providing Ann with needed support during this difficult time (Doc 1, Line 378).

Jean: And, so I supported that person a lot because they ended up on sick leave and on stress leave and (Doc 1, Line 378).

The intragroup and extra-group system shocks eventually came to a resolution with the member in question taking a leave of absence that they did not return from, leaving the university. The basis for the two system shocks had vanished, and the

focal group was left to reform and attempt to return to regain the group structure they once had before these shocks (Doc 1, Line 394).

Jean: So, it was a very, it was a really difficult time. When the person went on leave it, it left the team in a, in a bit of a mess still, because we weren't together, you know. But we rebuilt that, uh, over time (Doc 1, Line 394).

Unfortunately, after the system shocks had passed, the focal group's structure remained fragmented. The group attempted to reform and regain its former structure, but Ann placed herself at arm's length from the group, having fewer group meetings and discontinuing social interaction with many of the members (Doc 1, Line 408-412).

Jean: But when, um, she [Ann] came back, her attitude had changed like she wasn't, like she wasn't going to be vulnerable, so she wasn't [pause] She distributed a lot of responsibilities to other people in a way. You know, like she was just like this is, uh, I mean, I think it was a wise decision frankly, you know. Just about to have a nervous breakdown, you kinda gotta make

Keith: Yes

Jean: You can't just come back and go "Right now I'm, I'm gonna do everything in the [pause]" You know, so she, she needed to protect herself and, and she did need to protect herself. But, um, and that she did. Uh, so there was a lot of shifts while people changed roles, um and, and sort of. The dean had always, um, been the backbone.

Keith: Mm[pause]hmm (affirmative).

Jean: You know, and that broke down in a way. She still was to a point; she was to me, you know. But, uh, but not everybody. So, there was, people reacted to those sorts of, "Everybody is different" (Doc 1, Line 408-412).

The form the focal group took post system shocks was far different than how it functioned before the system shocks. The group had lost its structural cohesion, which had an adverse effect on its structure and ability to attain group goals or to meet individual needs (Doc 1, Line 418-419; Doc 1, Line 428).

Jean: Yes, it did, it did function differently. I don't think it really was this cohesive [pause] I mean it was very common in, prior to that, that series of events, which I don't recall how long it lasted. Did Ann know, was it a year or two? It was

Keith: Yeah, 18 months (Doc 1, Line 418-419).

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Jean: We do it ever few weeks nearly, you know, like any excuse. We all were together like we are at the top building and we all, um, so you just stand in the middle of the corridor and "I'm going over at this spot lu- for lunch. Anyone wanna come?" and people would just come out. You know, like it was very collegial and we just up and go. So, that kind of thing never returned. So, the, from then on there'd be two or three of us would go for lunch. So, there were divisions then I think, and I don't know that they ever, ever came back the way they used to be (Doc 1, Line 428).

By 2007, the [First Program] award became a part of the school of education. The move coupled with the recent series of system shocks had made Ann very protective of herself and the [First Program] award. Ann had concerns over what level of professional status the school of education would convey onto [First Program] award.

These concerns took the form an extra-group system shock when [First Program] award issues were not given the same level of importance as issues raised by the other pre-existing awards within the school of education. Ann quickly identified this as an indication that the [First Program] award lacked the level of professional status that was conveyed to the other awards and was viewed as a second-class award. (Doc 2, Line 369-373).

Ann: So, we were the second-class citizens in terms of University courses.

Keith: Yes.

Ann: And when we came back into the [pause] the new [pause] what was the School of Education in 2007 when we moved back down here.

Keith: Yes.

Ann: One of my concerns was potentially being swamped and overrun by primary and secondary issues (Doc 2, Line 369-373).

Ann frequently experienced the second-class stigma, strengthened her resolve to protect the professional status of the [First Program] award. Ann recounted how she had to repeatedly fight for the [First Program] award during an incident that occurred 12 months before the start of this study (Doc 2, Line 407-409).

Ann: No [pause] not really because I mean 12 months ago, I was still going. Excuse me, where is [First Program] award [award] for some things but also people learned a lot. I think they learned a lot more about [First Program] award [award] and certainly [pause] every [pause] everybody certainly knows who the team is (laughs).

Keith: Yeah. Yes.

Ann: There is [pause] there is no question across the school of who [pause] who we are and what we're doing. Not that the people, necessarily know the details of the courses (Doc 2, Line 407-409).

By 2008, the [First Program] award was experiencing a growth in enrolment, and new academic staff had been hired who held strong backgrounds in [First Program] discipline while having an extensive tertiary teaching experience that equalled Ann's background and expertise. The maturity level of the focal group had increased, along with the expectations that membership had regarding how a group and the [First Program] award should function (Doc 10, Line 215).

Sue: Whereas, at the [pause] in the very earliest stage [pause] in those early stages, you sort of had to go in and put on your face. It was kinda like a little bit like, ah, you know, tortured by a thousand cuts. You just go to the meeting, you deal with it, and you sit there because [pause] And again, I wasn't one of the people who spoke very often. When I did, I usually had a strong idea, really strong idea about something and then it would often get shut down. So, I sort of learned to just sort of [pause] It was really, really important to me just sort of sit there, shut up, and just get through it (Doc 10, Line 215).

Up to this point, Ann was the unchallenged formal leader of the focal group—a position bolstered by her 29-year academic career (recall Table 4.1). However, her position as the unchallenged formal leader changed as the experienced staff were hired for the [First Program] award. Ann viewed these changes as challenging her ability to maintain control over the group as its formal leader. The group had evolved and was no longer blindly following Ann's leadership on how to function as they had done during the group's inception. The new staff had their idea of what was appropriate and inappropriate group behaviour, creating a challenge to Ann's formal leadership of the focal group (Doc 10, Line 201-211).

Sue: I didn't view it that way at the time. I just viewed as this is just the way it is cause, I always, when I move to a new country, I don't know the difference sometimes between what's cultural and what's the actual tea. So, when I did begin to notice there was dysfunction was Liz, and I took over as course coordinators. That is when I began to notice some dysfunction. I began to notice that it's just not fair that two and sometimes three people are taking over the conversations, not letting people have a voice

Keith: And did it become equal under your guidance, under yours and Liz's guidance?

- Sue: *It became more equal. It definitely became more equal, and people learned like um [pause] Okay, this is just for us, right? (laughs)*
- Keith: *Yes.*
- Sue: *So, like maybe it wouldn't matter, it doesn't matter what I say, it's not gonna matter anyways and that she [Ann] be [pause] she brought a rock with her to rub because she was so anxious because she wasn't allowed to talk in the way that she was talking before.*
- Keith: *And why do you think she was so anxious? Would it be on not being able to talk about everything that was going on would make her feel anxious?*
- Sue: *Well she was [pause] normally, she was the team leader, and the course coordinator and she wasn't anymore. So, I'm [pause] I don't know for sure, but I'm guessing that she was feeling like she was no longer in control.*
- Keith: *Okay. And that was a problem?*
- Sue: *That was a problem.*
- Keith: *So as [pause] so as you and Nicole were sort of influencing the [focal group] in terms of how it functions, what were the positives that you saw with that [focal group] during that point in time?*
- Sue: *Um, people who were really quiet began to speak up more. For example, Lori and Jenny started talking, started sharing more. Ahhh, we started developing some more sort of [focal group] goals, for example, in the research offshoot that we had the research group, we ended up traveling together to present in conference and we also um, we also published three or four chapters and articles and so, we're very productive and we were also [pause] we were also really getting to know one another. So, like in our little meetings, there would have to be sharing, tears, and laughter, and things like that. Moreover, that really made us a cohesive group, and we really felt like we could make a difference (Doc 10, Line 201-211).*

The focal group began to behave in a manner that was far different than when Sue was first hired in 2008. The group was becoming more inclusive of differing member ideas through inclusive group discussions, where each member was now allowed to have an equal say on group issues (Doc 10, Line 215).

- Sue: *Well everybody had an equal voice. I think that um, we were able to display vulnerability. We were able to dis [pause] to share who we really were as opposed to putting on a face and just dealing with it so we could really be ourselves and be vulnerable. And within that vulnerability and being ourselves, then we are [pause] I'm able to actually [pause] I can move forward on a lot of things like publishing more um, create [focal group] goals, um, look at a cohesive course versus a bunch of units in a course so I think that it had to do with that sense of the freedom to be vulnerable and to be yourself (Doc 10, Line 215).*

As the focal group became more inclusive and cohesive, Ann was no longer central to group's function and the development of the [First Program] award. At this time, Ann relinquished her formal leadership role, with the group opting to rotate this role amongst the members on a yearly basis.

Ann's response to these changes in focal group structure and function was to become the group's informal leader, a role that was enabled by her seniority and level of professional status conveyed upon her by the group. Ann applied her informal leadership influence by directing group discussion towards what she considered a more favourable outcome, meeting one of her individual needs of maintaining the focal group's historical (fundamental) identity (Doc 10, Line 281-289).

Sue: Many people are coming in, and there's this, and there's that, and there's over top of each other and inside of each other, and you know, I mean there's ... there's people like Jenny, um, with her disability who can't even cope with processing that information. That makes me really angry 'cause you always have make sure that everybody has an equal opportunity to share so people would talk over each other. And then if I would ... for example if I would come up with something new or a different idea or maybe Lori ... well not ... to some degree, Lori as well, it would typically be jumped all over again [by Ann] and a very ... I guess the only I can say there's a girly kind of way. So, it wasn't direct like I would expect to say "I don't think so", "I think we should go this way because of this and this and this." It was more like jump-in, change the subject, change what we're viewing as or do the whole Ann thing which was "Well historically, we've done this and this and this."

Keith: Mm-hmm.

Sue: So, it's not a direct kind of a confrontation, but there's an underlying, under the ground confrontation I guess happening all the time which means in the end, that very little gets accomplished, very little ... When we ... for example, when Liz and I had ... we had one call on our agenda that says ... that said what is the issue and who will be dealing with it and by what time. Well that was removed from the

Keith: Yes.

Sue: from the thing.

Keith: Mm-hmm.

Sue: So, the ... who's doing it and by what time will it be done? 'Cause to me it seemed, if you have something that needs to be done, then it needs to be done by somebody by a certain time.

Keith: So, what did that lead to, with that being removed?

Sue: Well I think, um, a couple of things happened. Either it didn't get dealt with, and it would be brought forth to the next meeting, or else, some of

the workhorses did it. And the workhorses wouldn't allow us to ... Probably one of the biggest workhorses was Lori, so Lori would just quietly go about and doing it. Initially, I would have been one of those people too, but I eventually stopped because it ... it was never respected or appreciated (Doc 10, Line 281-289).

The focal group's historical trajectory reveals their inception and evolution until the start of this research. They experienced a number of developmental phases that could be said to be similar to those outlined by Tuckman and Jensen (1977), i.e. forming, storming, and norming. However, the focal group's development does not represent the movement along a linear developmental path. As the group evolved, they demonstrated behaviours that reflected the emerging dynamics they were experiencing as they incurred changes in their contextualised environment over time, where the group had to adapt to changes from within its contextualised environment that came in the form of system shocks that caused the focal group to adapt its dynamics and demonstrated changes in its behaviour.

4.4. The Group

At the time of this research, the focal group was composed of nine women members, ages ranging from the 30s to 60s, with group tenure from one to sixteen years (recall Table 4.1). As the table reveals, the personal and professional background of these members was quite varied, creating a heterogeneous group membership.

The Participants

The composition of the participants ranged in years of membership, areas of expertise, years' service at the university, length of professional career, educational history, country of origin, years in Australia, terminal values, age, and work values cohort. The information gathered regarding the personal and professional backgrounds of the participants provided insights into the focal group's dynamics and the related behaviours I observed over a 12-month period. The composition of the focal group varied since its inauguration in 1998 with the addition of members up to the time of the 12-month observation period (see Figure 4.1). Group meetings during this period were on occasion attended by visitors. I determined the participants' terminal and work cohort values by interpreting the responses given

during the semi-structured interviews. A participant's terminal and work values were defined as their individual needs.

Figure 4.1. Group Membership Timeline



The interpretation of the individual's terminal values was based on Rokeach's (1973) eighteen terminal value statements, which were transformed into open codes. An individual's workforce generation values were interpreted with the use of dominant work values attributed to each of the four workforce generations, Veterans, Boomers, Xers, and Nexters, which were used to create relevant open codes (Parry & Urwin, 2011; Stevens, 2010). The open codes were used to code each interview based on my interpretation of which statements reflected specific terminal or work values. The number of statements that were either coded as a terminal or work values was totalled, with the most frequently occurring codes being interpreted as indicative of the terminal and work values for each participant interviewed.

Ann. Ann was the original focal group leader and led the effort to create and develop the [First Program] award and focal group. She was originally from the United States, where she began her formal education, receiving her masters award in home economics and specialising in the initial development, family/relations. Being born and raised in the United States would have given Ann a strong individualist cultural background (Hofstede, 2001). Ann's terminal values were accomplishment, equality, inner harmony, and exciting life (recall Table 4.1) (Rokeach, 1973, p. 28). To experience these terminal values, Ann would apply the following instrumental values of being capable, courageous, imaginative, and broad minded (Rokeach, 1973, p. 28).

The combination of her cultural background and her desire for accomplishment provided her with a singular drive to be successful in her chosen area of interest, the [First Program] award, over a 44-year academic career. Her interest in the [First Program] award was spawned by her grandmother, an area she worked in for several years in the USA, primarily at post-secondary educational institutions. Eventually, she moved to Australia and completed her PhD in the [First Program] award and became very active in this area across Australia, becoming a strong education academic and advocate. Ann's work values reflected the Boomer generation, which desires success, achievement, and ambition (recall Table 4.1) (Parry & Urwin, 2011; Robbins et al., 2007; Stevens, 2010).

Earlier on in the development phase of the [First Program] award, Ann experienced a significant staffing problem that not only affected the development of the [focal group] and its award but her health as well. Ann's self-image of being a capable leader who could accomplish the goals she set for herself was shaken when she incurred a series of system shocks (recall Section 4.3). Upon the resolution of these system shocks, Ann isolated herself from the focal group while she continued to doubt herself as a capable leader.

However, over the course of observing 12 monthly focal group meetings, Ann was the third most active participant in group interactions, at 20.38% (see Appendix 10). Ann's high level of participation indicates that at the time of this research, she had become very active in group interplay, which would reflect Ann's ambition to successfully lead the group as she once did in the past. Ann was observed on numerous occasions as acting like the group's informal leader in her effort to keep the [First Program] award unchanged, which translates into maintaining the group's fundamental identity. Ann's efforts to protect the [First Program] award was evidenced during the group meeting in January 2012. Ann reminds the focal group that they must safeguard the award against having to adapt to changes supported by the school of education (Doc 1-1, Line 429).

Ann: [JI] If we don't have it now we have to do this form in the next ten days, we're not going to do it. We've got to protect ourselves too (Doc 1-1, Line 429).

All quotes that are from the participant observations of focal group meetings will appear in green text. Further, the various two letter codes that appear in brackets at the start and/or the end of a quote is pre-code coding (recall Section 3.9): [OS]=Over Speak, [JI]=Jump In, [UT]=Unfinished Thought, [AF]=Attempt to Finish Thought, [IS]=Inaudible Statement, [BN]=Background Noise, [GD]=Gapless Discussion, [SB]=Side Bar. For complete definitions of these codes (see Appendix 2).

Over the course of this study, Ann revealed her [First Program] award philosophy regarding which age group the award should reflect, despite how this philosophy was counter to the changes being brought in by the school of education. Her philosophy was only to provide units that instructed students on how to teach

children 0-5 years and not for the expanded 0-8 years, which was the goal of a new [New Dual Degree] award that the school of education was implementing. Ann aired this philosophical concern in the example below from a monthly meeting (Doc 9-1, Line 388).

Ann: [OS] I do not believe in (0-8) years, we should only be focused on (0-5) years the new [placement] material it would seem are for (0-8) years, and that is a big change for [First Program] award (Doc 9-1, Line 388).

The philosophical stance taken by Ann runs counter to what she and the focal group historically viewed as strengths of the [First Program] award in 2003, teaching for the 0-8 years' age group. The group had projected that by the first semester of 2005, the [First Program] award would be offering a primary [curriculum] pathway for the 0-8 years' age group (Doc 20-4, Line 499-502).

- *Unit strengths: first time offered (semester 1, 2005) with restructured content that covers (0-8) years and links to 'primary pathway' requirements; strength is relating to State documents' content, and their use to support students in teaching literacy; text is linked with several States' recommendations; very practical for [[First Program] award] settings and schools (Doc 20-4, Line 499-502).*

The contradictory stance that Ann took does not support her philosophical resistance to the [New Dual Degree] award. Her resistance to the [New Dual Degree] award can be related to her inability to exert her leadership influence over the [New Dual Degree] award, in the same manner, she had for the [First Program] award. The failure to influence the [New Dual Degree] award and the level of adaptation required by the [First Program] award presented Ann with a loss of leadership control over an award she had spent 18 years creating and developing. That loss of control was a severe threat to Ann's professional status, diminishing her ability to experience her desired values of accomplishment, success, and achievement, and would explain her contradictory philosophical statement (Doc 9-1, Line 388).

Jean. Jean was an Australian-born member who was a part of the focal group since its inception, having spent 14 years at the university. Being born and raised in Australia precludes Jean to have strong individualist cultural background (Hofstede, 2001). Her terminal values were accomplishment, inner harmony, social recognition,

and friendships (recall Table 4.1) (Rokeach, 1973, p. 28). To enable Jean to experience these terminal values, she would apply the following instrumental values by being capable, imaginative, polite, and responsible (Rokeach, 1973, p. 28). The work values that emerged for Jean were related to the Boomer generation, which values success, achievement, and ambition (recall Table 4.1) (Parry & Urwin, 2011; Robbins et al., 2007; Stevens, 2010). Jean had developed a strong social and professional relationship with Ann, which began before she first came to the university (Doc 1, Line 176).

Jean: Yes, Ann was the program manager, and she was the one who'd encourage me to go for the job.

Keith: Oh, yes.

Jean: She'd been from Brisbane, so she'd known me there.

Keith: Yes.

Jean: And she'd actually taught me in my post grad degree (Doc 1, Line 176)

Jean was a part of the initial development of the [First Program] award and was actively involved in the creation and teaching of [New Dual Degree] award units, despite her area of expertise being in [Leadership Education]. Despite not being formally educated in the [First Program] discipline, she did experience success being a part of the award's development, and teaching allowing her to experience her values of accomplishment, success, and achievement (Doc 1, Line 228).

Jean: Yeah, I love change, I, I love it, I still do. I thrive on change, so that part; and like, I quite like a challenge and I feel competent at it. I mean it wasn't ... it was hard to learn, but I could feel myself learning, you know. So, it was sort of that, it was quite ... Nadine was really very supportive and in fact, the university was very supportive. Um, as in the school and you know, they knew what we were doing but we still carried a full load of marking and that sort of stuff. And um, certainly I worked very hard in those early days in particular because it would take me 2 hours to mark an assignment because I was learning. (Laughs) (Doc 1, Line 228).

The terminal values revealed by Jean were gaining social recognition and the attainment of friendships, which was demonstrated by her being capable, imaginative, polite, and responsible. Jean demonstrated these instrumental values when she offered to help the focal group develop a Moodle introductory page for their units (Doc 1, Line 424).

Jean: I looked, and mine was fine. All I wanted to do, was show you something. When we've been working on Liz's 344, and you may already have this, but, and me as a real techno whatever who just lost all her assignments. But other than that, [UT]

Group: [OS] [Laughing].

Jean: [OS] [AF] there's this thing that Liz did, and I've been planning to do it was 416, so this is a mini tape that she had on hers, and I just think it's fantastic, and it's really easy to do, even though I messed it up. But Steven will help you and [UT]

Group: [OS] [Laughing].

Jean: [OS] [AF] I will help you, but it's very easy to do, and you may all know it already, but it didn't. So, what you do, is you create an introduction it's an introduction to the Moodle page essentially. So, this is the beginning [BN] [audio playing] it's louder than that on my computer. Can you hear me [BN] [audio playing]? So, they see this. (Doc 2-1, Line 567-571).

Jean demonstrated her support of Ann during a May 2012 focal group meeting, where the topic of discussion was Ann's reduced role with the team. Jean defended Ann's resisting the group's attempt to have her categorised as part-time staff. Ann was not present at this meeting, making this an excellent example of Jean's support of Ann (Doc 5-1, Line 768-797).

Jean: [GD] The other thing about the first trimester next year is that Ann is probably going to go three days, so she's almost part time [UT]

Lori: [OS] So we can't [UT]

Jane: [OS] well that's almost Katie's half and Ann, and you might get a contract for [UT]

Betty: [OS] a whole person

Jane: [AF] [OS] a whole person?

Lori: You can't get a contract for a position that's not vacant. If someone just takes a part of their position, they are [UT]

Jean: [OS] Unless it is a substantial [UT]

Lori: [AF] [OS] only employed casual [UT]

Jean: [AF] [OS] you can if it's substantially

Lori: Ok, which Ann has not done?

Jean: [GD] No

Lori: [GD] Which Ros might

Jean: [GD] So substantiality Ann is doing family friendly things now [UT]

Jane: [JI] No she's on pre-retirement, isn't she? I thought that was a substantial thing?

Lori: Not as [UT]

Jean: [OS] No no

Lori: [AF] [OS] of this year it wasn't

Jane: all right, fine [UT]

Jean: [OS] It was not in the agreement

Jane: [AF] [OS] Ok

- Jean: [GD] She's just flexible hours' type thing [UT]*
Jane: [OS] Ok
Jean: [AF] [OS], so that means she holds a substantial full-time position, so [UT]
Lori: [JI] Which means really, in theory, that we can allocate her a full load and she has to find [UT]
Jean: [JI] No, no you can only allocate her [UT]
Lori: [AF] That's what I mean she only has to teach. what happens is we have a whole position, but then we can't allocate [UT]
Jane: [OS] You have to use markers [UT]
Jean: [AF] [OS] Hers becomes casuals, casual replacement, but when we're looking at the staff thing, with Lori away, Ann halftime, Katie [UT]
Jane: [JI] Halftime
Jean: [AF] half time, um [UT] (Doc 5-1, Line 768-797).

Jean's area of expertise was in [Leadership Education], which was uncommon to the focal group dominated by [First Program] award expertise. Jean developed an insecurity regarding her lack of [First Program] award expertise and frequently added humour to group discussion, countering that lack of expertise and maintaining her terminal value of inner harmony (Doc 4-1, Line 491).

- Katie: [GD] This should take me half a minute*
Jean: [GD] But scintillating will take longer than a minute [UT]
Group: [OS] (Laughing)
Jane: [OS] Anything scintillating takes longer than a minute
Katie: Basically the [UT]
Jean: [OS] be surprised if she can spell it (Doc 4-1, Line 490-495).

In the above example, Jean interjected one of her witty comments that served the purpose of her maintaining an active role in a discussion while not offering substantive input to the discussion. By maintaining an active involvement in the discussion, Jean protected her role as an active, productive contributor to focal group discussions, allowing her to experience the value of social recognition (recall Table 4.1). Jean used multiple means to incorporate herself into group interplay as reflected by her having the second highest level of interactions: 21.15% (see Appendix 10). Jean's high level of interplay was due to her supporting Ann and not allowing her lack of [First Program] award expertise to become overly apparent.

Katie. Katie spent her entire seven-year academic career as a focal group member. She was born and raised in England, where she received her master's degree in [Education] and was in the process of completing her PhD in the [First Program]

award (recall Table 4.1). Being born and raised in England, Katie had a strong individualist cultural background (Hofstede, 2001) (recall Table 4.1). Katie was not a frequent speaker at focal group meetings, but on occasion would raise an issue that she had prior experience with (Doc 7-1, Line 1256).

Katie: Well this is just going back to the idea of a general discussion forum for [First Program] award students all in the generation not just unit by unit, just to try and sort of pull it together[pause]. I haven't discussed it with Rachael yet, it something I meant to do on Monday, of each of us having a link from our units to go straight into but at this starting point. I have a link which I put up to my 427, and I put it on 391 sites, to the University of Gloucestershire site. Their Facebook site for their students and they invited me to join in with them and invited our students to hook up with the UK students because we thought it would be nice for them to have a forum where they could discuss issues. Yes, we've [pause] the University of Gloucestershire have done it. I started it two years ago, and then it never really took off with another University but now Gloucestershire's done it, and if anybody's interested in their students joining that group I could send them the link (Doc 7-1, Line 1256).

She entered the workforce between 1965 and 1985, which makes her a member of the Boomer generation for work values (recall Table 4.1) (Parry & Urwin, 2011; Robbins et al., 2007; Stevens, 2010). A Boomer strives to gain success, achievement and ambition; has a dislike for authority; and is loyal towards her career. However, I was unable to confirm these work values or determine her terminal values because Katie left the focal group before I could perform a one-on-one semi-structured interview.

Katie's level of interaction with the focal group was well below average, at 3.20%, which was at odds with her work generation values (see Appendix 10), especially since the group frequently railed against senior school and university management, which matched with her dislike for authority and should have caused her to have a higher-level group interaction.

Lori. Lori had the third-longest tenure with the focal group of 10 years, having spent 12 years at the university. Being born and raised in Australia precludes Lori from having a strong individualist cultural background (Hofstede, 2001). The work values that emerged were related to the Xers generation, which values a work/life balance,

is team-orientated, dislikes rules, and is loyal in relationships (recall Table 4.1) (Parry & Urwin, 2011; Robbins et al., 2007; Stevens, 2010).

Her area of expertise was in the [First Program] award for ages 0-8 years, which places her area of competence in line with most the focal group. During the 12 months of observation, Lori was the formal group leader—a role that was held for one year before being rotated to another member. As the formal group leader, she had to ensure that the group supported that attainment of university goals, managed the members' academic workloads, and acted as the communication bridge between the group and the deputy head of school.

The role required Lori to deal with numerous conflicts and decision-making issues that faced the focal group, which at times placed her at odds with other members. Conflict arose when she had to assume a school of education's perspective on a matter before the group that ran counter to the views held the members. The role of the formal group leader required Lori to be frequently involved in group discussions, which were reflected in her high level of group interaction of 22.31% (see Appendix 10). The demands of her role and the completion of her traditional job duties placed her opportunity to experience her value of a work\life balance in jeopardy. Her combined role did create tension between attending to issues from the group's perspective versus her individual perspective, having to consider first what was best for the group and second what was best for her.

With Lori's role, she was always involved in focal group conflicts, which made it difficult for her to experience her desired terminal values of inner harmony, equality, accomplishment, and an exciting life (recall Table 4.1) (Rokeach, 1973, p. 28). She sought to experience her terminal values through the instrumental values of being imaginative, courageous, capable, and broad minded (Rokeach, 1973, p. 28). Lori did command a level of respect from the focal group, but she was easily dismissed by more senior group members, which gave her a level of frustration that made it difficult for her to be imaginative, courageous, and capable of allowing her to experience inner harmony and equality.

Group discussions frequently became dominated by a few speakers to the exclusion of other members. In Lori's attempt to attain equality, in the quote below, she was

courageous by ensuring that a few members did not dominate the focal group interplay by injecting herself into the discussion to take control away from those dominant speakers (Doc 9-1, Line 380-385).

- Ann: [OS] For strictly and pedagogical stance what are you basing these changes on if ...! [UT]*
- Donna:[OS] [AF] has to come from the instructors*
- Ann: [OS][AF] if I may ask?*
- Lori: The [New Dual Degree] award would be expected and that updated, and new material will you know be made available to the students.*
- Ann: But why here and now when we have perfectly good material already in hand? So are we expected to blindly accept this new material... [UT]*
- Lori: [OS] No, but it is not up to you to make that final determination... [UT] (Doc 9-1, Line 380-385).*

In the above example, Lori took a direct and tough stance against Ann's attempts to control the focal group's discussion. After this group meeting, she stated that she had prepared for a contentious meeting and was determined not to let the meeting get off topic or be controlled by Ann.

Barb. Barb had completed one year as a member of the focal group and was its newest member. She was born and raised in Australia, where her cultural background would be an individualist (Hofstede, 2001). Barb's academic career at that time was also one year in length, and she was in the process of completing her doctoral degree in [First Program] award. Over the course of her professional life, she had owned and operated her own business, an art school, for several years before becoming an academic. Barb's professional past was in line with the work values of Boomers. A Boomer strives for success and is achievement orientated, ambitious, and career focused (Parry & Urwin, 2011; Robbins et al., 2007; Stevens, 2010). Her terminal values were inner harmony, happiness, and social recognition, which she experienced, through the instrumental values of being daring, creative truthful, considerate, courteous, and well-mannered, with being the owner-operator of her arts school (recall Table 4.1) (Rokeach, 1973, p. 28) (Doc 5, Line 41-47).

- Barb: So, then I, you know, had children and all that and then I did my master's in [Education]and then continued [pause] like a ran an arts University for nine years out at Moree*
- Keith: Oh, did you?*

Barb: Yeah, and I had government contracts with councils and things to do [First Program] award intervention music programs in isolated communities and around an instrumental band program in primary organisations, and also you know, involving community members and then like teaching an art movement dance sort of thing. So, I ran that for five years, and that was really good yeah

Keith: Was that fairly new?

Barb: And that was yeah, but it was good. Anyway, in the end, it was a successful business, it was incredibly time-consuming. I had a bookkeeper part time, a music teacher, as well as myself and just ran this program. So, no (Doc 5, Line 41-47).

Barb was an infrequent contributor to focal group discussions over the course of 12 months, where she contributed only 4.45% (see Appendix 10). The lack of input by Barb during group interactions, I would argue, restricted her ability to experience her terminal value of inner harmony through the instrumental values of being daring or creative (Rokeach, 1973, p. 28). She frequently limited her input to general comments during group discussion (Doc 6-1, Line 1645-1653).

Lori: [OS] We actually write

Ann: [OS] [AF] doesn't [UT]

Lori: [OS] [AF] in the course advanced standing granted. Which they are actually asked to write in there and it is wrong. Because I cannot decide if a student has advanced standing.

Barb: And didn't say um that this should just be acknowledge in a system that would issue [UT]

Ann: [OS] Don't ever say [UT]

Group: [OS] [IS]

Ann: [OS] [AF] that in front of anyone [UT]

Group: [OS] [IS]

Lori: [OS] now I have always put no [UT] (Doc 6-1, Line 1645-1653).

The inability for Barb to experience her desired terminal values caused her frustration, which was heightened by her inability to participant in focal group discussions (Doc 5, Line 311-313).

Barb: Yeah, I guess probably just that it was very dictatorial, you know, and it was very levelled, and you wouldn't you know, why would office worker have an idea not that I was bad but why would an office worker have an idea (laughing)? Tell them to talk to them you're in the middle, and I'm here, and you know, it was just made for unhappy

Keith: Very class driven, very hierarchical?

Barb: Yeah and very unhappy people (Doc 5, Line 311-313).

Betty. Betty has been a member of the focal group for six years of her 16-year academic career. She was born and raised in England, where her cultural background was as an individualist (Hofstede, 2001). Over Betty's 16-year academic career, she developed a strong sense of what her professional desires and dislikes or more importantly those situations she dislikes (Doc 6, 327-329).

Betty: I think the meetings got too many old people, guards, in there you know, they ought to try and get it down, like me and Jenny and Jean and Ann, you know, we're just marking time which is not good when the majority of the group's like that.

Keith: Mm hmm

Betty: It doesn't give it any vitality, it doesn't give in any forward impetus or anything you know, it needs a whole bunch of new young keen people in there. It's just a shame when we lost Liz because she was really good (Doc 6, 327-329).

In this example, Betty indicates that to enable the focal group to move forward and grow, changes to the group membership must occur, with the removal of long-term members: herself, Ann, and Jean. Betty also emphasised that her role in the group was less active than in the past, as reflected by her below average level of participation in group interplay over 12 months of 6.27% (see Appendix 10).

Betty's area of expertise was in the [First Program] award for ages 0-8 years and included art education. Her work values represented the Boomers generation (Parry & Urwin, 2011; Robbins et al., 2007; Stevens, 2010). What a Boomer strives to experience success, and they are achievement orientated, ambitious, and career focused. She combined her expertise and her work values to define further what she strived to accomplish. Betty envisioned her future role as an initiator of creative projects—activities that are removed from teacher education (Doc 6, Line 173-179).

Betty: So, I said, "Do you think we need any music", and so I said, "Who's around from the music program and contact Richard, he's just not easy to work with. I said, "What about John", I said, "You know he's a bit asperser", but I said, "He's really committed, and he's really enthusiastic, and he's really great with old traditional music", and I said, "I think he plays a Japanese instrument as well so I might talk to him". I said, "What do you think about joining us", so you know. So tomorrow I'm meeting all three of them and we just - I'm not going with an agenda, I'm just going with okay here's the Koinobori, here is the artist in Japan, and what can we all put together in this so that we all get something out of it?

- Keith: But you're still sort of a band leader to this whole thing, is what you're doing. You're sort of bringing people in, right? You're producing it?*
- Betty: Yeah, I'm kind of producing it that's right.*
- Keith: Yeah producing it?*
- Betty: Yes, it's call curating?*
- Keith: Curating, is that what it's called?*
- Betty: Yeah, it's called curating (laughing), and it takes a lot of work and a lot of effort and a lot of thought and a lot of organisation, you know, following people up, massaging their egos, you know, it they need it. Problem-solving for the, finding money if they need it. So, like I took Christine with me to Bali to help me. Research assistant, so I use my APF funds to pay her (Doc 6, Line 173-179).*

The terminal values that Betty wants to experience accomplishment, inner harmony, and to lead an exciting life (recall Table 4.1) (Rokeach, 1973, p. 28). To experience these terminal values, she must apply the instrumental values of being capable, imaginative, and broad minded (Rokeach, 1973, p. 28). In the example above, Betty attains these terminal values by seeking projects and challenges that lay outside of the focal group and [First Program] realm, allowing her to demonstrate her instrumental values.

Jane. Jane was a recent and unique member of the focal group; she had a unique area of expertise and professional history while holding a senior academic position within the school of education. Jane was born and raised in New Zealand, where her cultural background would be an individualist (Hofstede, 2001). Her area of expertise was in the [Human Science] award, which was removed from what was the norm for the focal group, being the [First Program] award (recall Table 4.1). In the example below, Jane expresses she had not taught a [First Program] unit until she arrived at the university four years ago, after a 34-year academic career (Doc 4, Line 458-551).

- Keith: So, in all those years, in all those different jobs that you worked through, it's odd that you say this is the first time you've been in School of Education too by the way?*
- Jane: Yes. (Laughing)*
- Keith: I was under the premise that that's sort of where you sort of came from?*
- Jane: No, I'm not actually a trained teacher (Doc 4, Line 458-551).*

Jane held a senior position within the school of education and the focal group. However, her lack of professional experience in teaching [First Program] units placed

her at a disadvantage during group discussions on [First Program] award issues, as evidenced by her low level of interaction during group interplay of 13.65% of total interactions within the group during a 12-month observation period (see Appendix 10). Jane revealed the terminal values of accomplishment, inner harmony, and social recognition (Rokeach, 1973, p. 28).

However, her level of interplay with the focal group would have given her few opportunities to demonstrate the required instrumental values of appearing capable and satisfying her need for accomplishment (recall Table 4.1) (Rokeach, 1973, p. 28). Jane demonstrated the need to appear capable when she recounted her ability to complete her PhD without the support of a doctoral advisor (Doc 4, Line 115-117).

Jane: I finished it, my supervisor actually left half way through the first year, and they didn't replace him until the last year, so the poor guy who came in got lumbered with me, and by that point, I just figured out what I was doing, and I was doing it

Keith: Yes

Jane: and saying, well that's what I'm doing, and he's going, that's not my area (Doc 4, Line 115-117).

Jane revealed the work values of the Boomer generation with the desire to gain success and achievement, be ambitious, maintain a dislike for authority, and be loyal to her career (Parry & Urwin, 2011; Robbins et al., 2007; Stevens, 2010). She experienced these values through her diverse work background, which saw her rise in professional stature to the level of full professor at the university.

Jenny. Jenny had a five-year academic career and was a member of the focal group for all those years. She was born and raised in Australia, giving her a cultural background of an individualist (Hofstede, 2001). Her terminal values were unknown due to her not responding to the request for an interview. The work values that emerged for Jenny were related to the Boomers generation, which strives for success and is achievement orientated, ambitious, and career focused (Parry & Urwin, 2011; Robbins et al., 2007; Stevens, 2010). Jenny did not demonstrate these work values, where she tended to remove herself from being an active participant in focal group interplay. Jenny was involved in only 2.34% of the total number of group interactions over a 12-month observation period (see Appendix 10). An explanation

for Jenny's lack of involvement was the medical condition that she suffered from that made her ability to enter group discussions both quickly and forcefully very difficult.

The focal group was aware of her medical condition but rarely made allowances to enable Jenny to be a more active participant in their discussions. When the group was discussing an issue that involved Jenny, and she was present at the meeting, the group referred to her in the third person and did not allow her to enter the discussion (Doc 4-1, Line 367-385).

Ann: Where it's professional – you're not doing any with professional experience in [UT]

Jean: [JI] Yes 388 got one day.

Ann: But that's a real task that's not [UT]

Jenny: [OS][IS]

Group: [Laughter]

Ann: [OS] [AF] there's a real task for one or two days [UT]

Group: [OS] (Laughing)

Ann: [OS] [AF] it's not real professional experience that the [placement] office is handling.

Jean: So, doesn't it go here as well?

Ann: [GD] It goes there as a real, task, and however, you have it set up. However Jenny set it up to be graded as a real task. [UT]

Jean: [OS] [IS][UT]

Ann: [OS] [AF] They all have percentage. The one and two days are a percentage of the four thousand-word assessment.

Jean: So, there's still the three assignments

Jenny: Four assignments, isn't it?

Jean: Well I'm only putting three in

Group: [laughing]

Ann: Okay, is that it

Jean: Yep

Ann: 488 everybody should know what their prescribed textbook is. Again, double check what you potentially put in in the 2013-unit outline. They have this – all reading should ideally be post-2000. I think we ought to take on political stance and challenge that where we want to, to have seminal reading sort of prior to this date (Doc 4-1, Line 367-385).

Sue. Sue had a 13-year academic career, eight years as an assistant professor in the United States and five years with the focal group before she left. She was born and raised in Canada, where her cultural background would be an individualist (Hofstede, 2001). The work values that emerged for Sue were related to the Xers generation, which values a work/life balance, a team-orientation, a dislike for rules,

and loyalty to relationships (recall Table 4.1) (Parry & Urwin, 2011; Robbins et al., 2007; Stevens, 2010). Sue's area of expertise was [First Program Maths] for ages 0-8 years and ages 0-12 years. The terminal values that she desired were to have an exciting life, security, friendship, freedom, accomplishment, and inner harmony (recall Table 4.1) (Rokeach, 1973, p. 28).

Sue sought to attain her terminal values; she demonstrated the instrumental values of being broad minded, forgiving of others, and being responsible (Rokeach, 1973, p. 28). She was driven to working for the welfare of others; being competent, efficient, daring, and creative; and standing up for her beliefs (Rokeach, 1973, p. 28) (Doc 10, Line 193).

Sue: Then things seemed to get better really. I noticed, you know, at first, in the team, there seemed to be a couple of people who are a little overbearing and a little bit sort of bossy about things, but when you got passed those one or two people, there were some really nice people in the team that were nice and supportive and then, I moved for a little while being the course coordinator along with Liz. And Liz, I also had gone to University with and was friends with, so that worked out really well and things, for me, started to really change because we were at meetings together and we did lots of planning, and we started up a little research group so most of the staff ... most of the [focal group] were working together on research as we as we are working on teaching. And Liz and I worked very, very carefully on putting a tight rein on the ... especially there were two voices that were very, very loud and insistent and we put a reign on that in terms of controlling the meeting and in terms of being fair and considerate to one another. We had set out ahead of time; this is what we expect in the meeting. We expect that people will take turns talking. We expect that there will be no talking over each other. We expect that if somebody has an idea, we let them express it completely before we say anything and we weren't very popular with those two or three, two people for sure, and one kind of ... but they seemed to respect that we were in charge, so they did a little better (Doc 10, Line 193).

Sue's drive to attain her desired terminal value of exciting life was demonstrated when she became the course coordinator for the new [New Dual Degree] award, which was a combined award of [First Program] and [Second Program] awards. Sue was required to be broad minded and get the focal group involved in writing new units and teaching those units for the [New Dual Degree] award. In the example

below, Sue attempts to address the group's resistance to being involved in the [New Dual Degree] award (Doc 9-1, Line 556-566).

- Ann: [GD] I see it as genuine concern, why get only one award when you can get 2 for the price of one?*
- Sue: [GD] I have talked with a number of students who want to specialise in Early Childhood and will stay in their current program [UT]*
- Ann: [OS] But you are [UT]*
- Sue: [OS] [AF] and I have not [UT]*
- Ann: [OS] [AF] offering a 2 for [UT]*
- Jean: [OS] Okay I agree with [UT]*
- Sue: [OS] [AF] had current new [UT]*
- Jean: [OS] [AF] that such a bargain [UT]*
- Ann: [OS] [AF] 1 deal with the new course [UT]*
- Sue: [OS] [AF] Could you let me finish Ann? Current new students flooding me with questions about*
- Ann: I guess we will see (Doc 9-1, Line 556-566).*

The resistance raised by the focal group escalated into a conflict between Sue and Ann (Doc 9-1, Line 701-713).

- Sue: [GD] Plus a letter has been sent to [accreditation agency] BDFUSB to confirm accreditation but the program does meet BDFUSB standards as we know them [UT]*
- Jean: [OS] how is this [UT]*
- Ann: [OS] I am saying [UT]*
- Jean: [OS] [AF] being budgeted do [UT]*
- Ann: [OS] [AF] if we do this and it comes out wrong or worse we do not get paid for our work than what is the point?*
- Sue: [AF] If you will just let me finish Ann?*
- Ann: Please go ahead*
- Sue: [AF] I have confidence the new course will receive BDFUSB accreditation and what is outstanding is writing the new units and teaching those units.*
- Lori: [GD] So I will send around the list for consideration and by next meeting, we will have the entire unit writing, and teaching needs met.*
- Ann: [GD] Well I for one am very busy and may not have time to... [UT]*
- Sue: [JI] I am sure we ... [UT]*
- Ann: [AF] [OS] write up new units ... [UT]*
- Sue: [AF] [OS] can find people eager to help the new course? (Doc 9-1, Line 701-713).*

Ann's resistance to the [First Program] award being involved in the [New Dual Degree] award was related to the adaptations that [First Program] award would have to make, which would cause the focal group's fundamental identity to change.

Joan. Joan was an administrative assistant and a focal group member for 11 of the 16 years she had worked at the university. She was born and raised in Australia, giving her a cultural background of an individualist (Hofstede, 2001). The terminal values that she desired were self-respect, friendship, and equality (recall Table 4.1) (Rokeach, 1973, p. 28). The instrumental values Joan demonstrated to attain these terminal values are being obedient, responsible, and courageous (Rokeach, 1973, p. 28). Joan emphasised during her interview that she desired self-respect, friendship, and equality when she discussed how she likes to relate to the academic staff (Doc 9, Line 61-65).

Joan: Um the next one was even more so, and then you had many different management styles and one of them, in particular, was a very social. He liked everyone to be social, and he would all within building were knackered by that point, and at morning tea time he would go, coming to morning tea and go, he would go and knock on every door and say come and have a break time to chat get out of there and that sort of created a pattern were pretty well everybody in this building would go to morning tea.

Keith: And what did you think of that?

Joan: I was wonderful it breaks down all the barriers um we had functions, and you could be someone who didn't work would stand at the door watch us all and have no idea what rank any of us

Keith: Yes

Joan: for want of a better word were because everybody was in there together with and you don't see that in any of the other schools (Doc 9, Line 61-65).

Joan was in her fifties and displayed the work values of a Veteran (Robbins et al., p. 121). Having these work values, Joan appreciated hard work, being conservative, conforming to others' needs, and being loyal to the university (Parry & Urwin, 2011; Robbins et al., 2007; Stevens, 2010). In the example below, Joan outlines how she was not deterred by hard tasks and liked to be self-reliant (Doc 9, Line 567).

Joan: Unless we have a problem do you know how to make this work? Or I forget how to do that, but once that's sorted were due on our own. (Doc 9, Line 567)

Throughout the interview, Joan was hesitant to freely respond, requiring frequent prodding to expand on her answers beyond a one- or two-word response (Doc 9, Line 616-623).

- Keith: So, you were there to do your job*
- Joan: Yeah*
- Keith: and that was*
- Joan: Yeah*
- Keith: was sort of it, and what do you think you were missing not having that socialisation factor. What were you missing? If would have had this, it would of?*
- Joan: Um I don't know*
- Keith: How would it have made your job better?*
- Joan: I think um I don't know how to answer this? Um, it didn't seem to be a set thing for the different positions as it is here (Doc 9, Line 616-623).*

The example above indicates Joan's desire to protect her self-image and maintain her self-respect by not providing what she considered to be an incorrect or poor interview response. Joan's lack of replies during her interview was in line with the level of interaction she demonstrated during group meetings, at 1.94%, the lowest of all members (see Appendix 10). Joan may have felt ill at ease being in a group of academics where she held a high school diploma and had a need to protect her self-image and maintain her self-respect.

Sally. Sally was an annual visitor to the focal group, representing a different school. Her annual visits were to arrange the group's involvement in a seminar week she ran each year. Sally's work values placed her in the Boomers generation, and she strived for success and was achievement orientated, ambitious, and career orientated (Parry & Urwin, 2011; Robbins et al., 2007; Stevens, 2010). At the time of this research, Sally was within the ESL school, teaching English to international students; she had spent all her ten-year academic career at the current university and had three masters' degrees (recall Table 4.1).

Sally was born and raised in Australia, giving her a cultural background of an individualist (Hofstede, 2001). Sally's terminal values were inner harmony, social recognition, equality, exciting life, and freedom (recall Table 4.1) (Rokeach, 1973, p. 28). She sought to experience her terminal values, being imaginative, polite, courageous, broad minded, and helpful. During her interview, Sally outlined how she sought to attain these terminal values through international travel and her professional life (Doc 7, Line 107; Doc 7, Line 137).

Sally: I decided to go to University (laughing), and I became a full-time student, I did a Bachelor's degree in English Language and Literature, followed immediately by a Master's Degree in Asian Studies, then went to Thailand. I completed my degree while I was in Thailand. I lived and worked there as an English teacher for 10 years, and while I was there I did a degree at a Thai University, a Master's Degree in Thai Studies, and then I came back here in 2000, the end of 2000/2001 and I did a Master's Degree in teaching English as a second or another language. So, I did a Master's of Education (Doc 7, Line 107).

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Sally: So, I just enrolled to do my degree, and the day I started to study I was offered a job, and half way through it, just 10 hours teaching or whatever. You know those kinds of things then lead on, and then about halfway through the year I was offered a full-time job, so that was really hard to reject. (Doc 7, Line 137)

The academic credentials that Sally had was a point of concern for the university regarding how her credentials were recognised. Sally had attained multiple master degrees and was not considered on the same academic level as the members of the focal group (Doc 7, Line 185).

Sally: That's we're a part of now, we're onsite, we run alongside TLC but you see all the teachers here, we're not considered as part of the academic, we were part of the general staff (Doc 7, Line 185).

Sally's lack of professional recognition would have placed her ability to attain the terminal value of social recognition in jeopardy.

Liz. Liz had recently left the focal group after spending three years as a member. The length of her academic career at the time of this study was six years. Liz was born and raised in Australia and completed her formal education in Canada. Being born and raised in Australia gave her a cultural background of an individualist (Hofstede, 2001). Liz's academic background was in curriculum studies, birth-8, which was in line with the academic background of much of the focal group. Her terminal values were inner harmony, self-respect, equality, happiness, and social recognition (recall Table 4.1) (Rokeach, 1973, p. 28). Liz sought to experience her terminal values by demonstrating the following instrumental values of being imaginative, obedient, courageous, honest, and polite. In the example below, Liz

recounts her experience as a member of the focal group and provides evidence for how her terminal values were not met (Doc 3, Line 29-33).

- Liz: For me I felt very boxed in, into [First Program] award, so my specialisation or expertise was seen as [First Program] award, but I didn't feel that it was valued [pause] I was valued as a [First Program] award person; that [First Program] award was seen as something different or outside of the remainder of Education in the School of School of Education at [University], and I guess that's the main difference.*
- Keith: So, there was, you could almost say there was sort of pigeonholing?*
- Liz: Yes, when it came to projecting possibilities, or research possibilities, or contributions in meetings, I felt they weren't always valued at an academic or over acting education level, they were just [pause]*
- Keith: And [First Program] award passed to you, and that was what you actually were?*
- Liz: Yes, that's right, and perhaps that was viewed by others as not as important or as significant as [Primary Education] or (Secondary Education), or yeah (Doc 3, Line 29-33).*

During her interview, Liz outlined that her inability to attain her desired terminal values was in part what led her to leave the focal group and the university. The opportunity for Liz to fulfil her terminal values through her current position was reflected in how she described her new position and its associated different job tasks. Liz described a level of academic freedom that she enjoys (Doc 3, Line 99).

- Liz: Yes, it's the Faculty of Education and yeah like I said before, we're all lecturers, or senior lecturers, or associate professors, or whatever in Education. That's our title to start with, and then we might have different roles or [pause] the team structure just depends on the need; so, I'm a program coordinator [pause] we have program coordinators for [First Program] award, [Primary Education], [Secondary Education], Vet and other areas because there's a need for it, because we have those specialisations within the Bachelor of Education. We also have a need for course teaching teams at different points in time from what I have seen so far, so if there's a big generation [pause] because the first year, the Bachelor of Education is common across all specialisations, so those first-year courses are massive, so it required teams of people working together. So, for example, there's, you know, the core courses are like education context and very general, but they require a [First Program] award person, a [Primary Education], [Secondary Education], et cetera to work on that teaching team, so all the perspectives are given for all the students (Doc 3, Line 99).*

Over the course of the interview with Liz, the work values that she aspired to were those of a Boomer generation, where she would strive for success and was

achievement orientated, ambitious, and career orientated (Parry & Urwin, 2011; Robbins et al., 2007; Stevens, 2010). These work values were important to Liz because it was one of the reasons why she left the focal group for a position that gave her the opportunity to fulfil these values (Doc 3, Line 107).

Liz: Well it just expands your professional or academic identity I guess and yeah that I have expertise in Education, and I can draw upon my curriculum background and [pause] well not that I can, because I always did at [University] as well, but yes so it's just about having that recognised or that you know, that I can be in the lead of the project and no one questions or wonders to you, why you're ... (Doc 3, Line 107).

Fred. Fred was a visitor to the focal group and was the head of school for the school of education. He had spent five years of his 25-year academic career with the school of education and was born and raised in Australia. Being born and raised in Australia gave him a cultural background of an individualist (Hofstede, 2001). His formal education was in the discipline of maths, and he had the terminal values of accomplishment, inner harmony, wisdom and an exciting life (recall Table 4.1) (Rokeach, 1973, p. 28). Fred sought to experience his terminal values by demonstrating the instrumental values of being capable, imaginative, self-controlled, and broad minded (Rokeach, 1973, p. 28). As the head of school, Fred applied a management philosophy that allowed him to attain the terminal values of inner harmony and wisdom. Fred's management philosophy was always to try to attain consensus support for his management initiatives (Doc 11, Line 103).

Fred: Then I [pause] so I listen, modify, adapt or change or amend it. You know depending on the strength of that, so it's done you know, I guess that one of the nice things about age and experience is that you actually have seen some of the things many times before, so you can act quickly, and say okay I see where it's going I'm going to lose this, so ditch, don't hesitate, burn your baby, move on and come up with a better idea or modify it, and being a consensus worker is actually a good one is actually listening to I reckon. It's critical listening and questioning skills and says, okay which way do we go then? So, the consensus is built by empowering other people as well... (Doc 11, Line 103).

Fred's work values were those of the Xers generation, which would typically not include an individual in their 50s. During Fred's interview, he described how he approaches working in a hierarchical University, exemplifying the work values of

being team-orientated, disliking rules, and being loyal in relationships (Parry & Urwin, 2011; Robbins et al., 2007; Stevens, 2010) (Doc 11, Line 103).

Fred: ... So, I see it like a cone upside down. So, that when you look at it, it's like an upside-down ice cream cone like, if you like I don't like hierarchies, but I see myself as the top. If the buck has to stop somewhere, I'll take the knock for the team. So, if the Vice Chancellor wants to send a rocket, it's me, and then I have to send it down. So, I see it as a round sort of bottom, and there're lots of people around there that I work with, that's my team. But when you look in from the top down, what you see is you see a circle in the middle and then a big circle around it with lots of different dots, or people around it... (Doc 11, Line 103).

Fred also demonstrated the Xer generation's value of work/life balance, where he describes his approach to staff who wish to go part time to improve their work/life balance (Doc 11, Line 119).

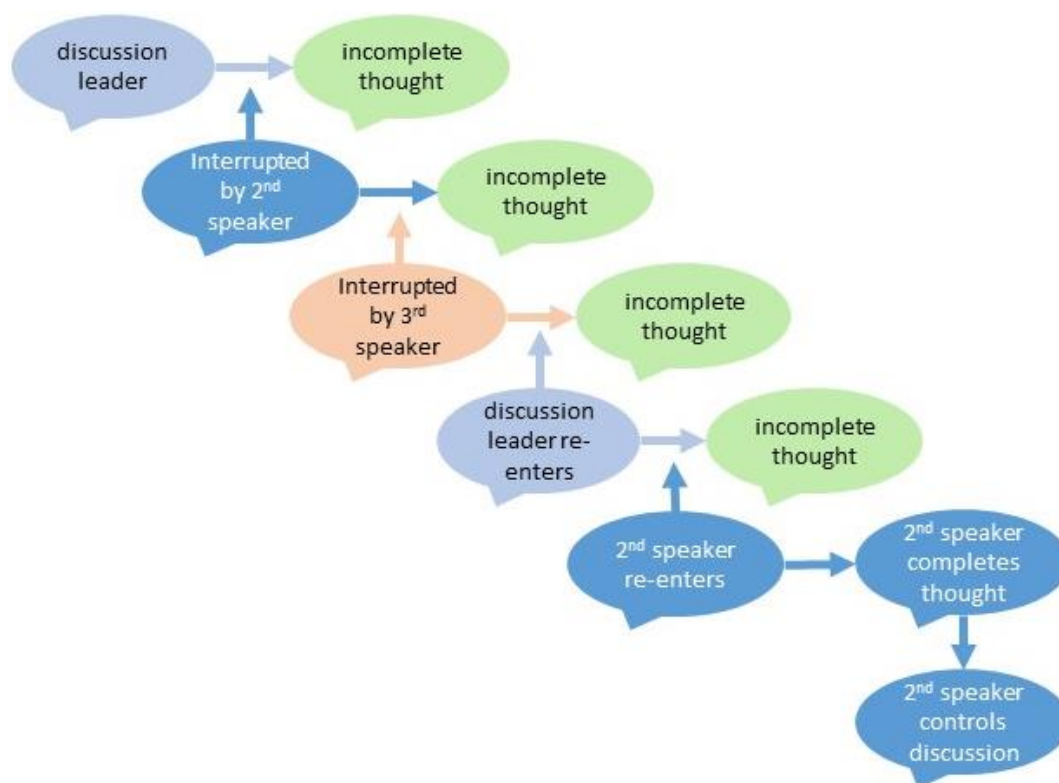
Fred: Yes, so I'm respectful of people along the process because I do genuinely respect everybody in the whole process. I don't mind a scrap, but I don't go out to have a fight, but I'll stand up for it. So, for instance, say some older people in the school are feeling the heat to give up, and I will create the communication with that person or those people, and say, I'm not expecting you to be running you know marathon with the school. We're thinking about the next generation of - respectfully, the next generation where the school is going to go, because in the next five to 10 years you're going to find I'm going to be gone, but we're going to leave a legacy, and that's what we've got to keep an eye on and that's fine. And in the last year, it's been quite interesting the number of people in that group have come to me and said, I'd like to go part time, or I want to pull back, and I'm saying let's consider it done, anything you want. So, I look after them in a respectful way (Doc 11, Line 119).

4.5. Business as Usual

The focal group demonstrated a business as usual dynamic that emerged from the self-organisation of behaviours it found successful when dealing with common, typical problems in the past. Historically the group incorporated a bureaucratic approach to completing group tasks as demonstrated through their past use of meeting agendas (see Appendix 9) and application of parliamentary procedure (Weitzel & Geist, 1998). Over time those identifiable early practices had morphed into a set of meeting dynamics that had some resemblance to the past but in all were unique to current times.

The group did employ a free discussion format (Sunwolf & Seibold, 1999) void of turn-taking and populated with the application of goal-oriented dynamics that facilitated members entering and exiting a group interplay when they felt compelled (see Figure 4.2). Participant observation revealed the frequent formation of dyads and triads in support of the emergence of informal leadership roles.

Figure 4.2. Free Discussion Format



During free discussion instances, conflict avoidance (J. Folger, Poole, & Stutman, 1993, 2009) was common where high-status members dominated discussion while other members refrained from offering conflicting ideas (Janis, 1972, 1989). In the example above speakers enter and leave a focal group discussion with some completing their thought and others unable to finish their thought. The initial leader was unable to finish their thought and the eventual leader, 2nd speaker, did finish their thought.

Goal-Oriented Dynamics

When I observed my first focal group meeting (January 12, 2012), the behaviours demonstrated represented a free discussion format, where many of the members were talking at once. Members were speaking over other members or jumping into

another member's discussion to influence a discussion's outcome by assuming the leadership of the group. Over the course of successive group meetings, the goal-oriented dynamics applied during the first meeting were repeatedly applied during my participant observation. The focal group did not experience goal-orientated dynamics in a predetermined manner but spontaneously as their contextual circumstances changed. The quickness and ease that these dynamics occurred and were immediately accepted when applied indicated that they were the product of repetitive use over the long term.

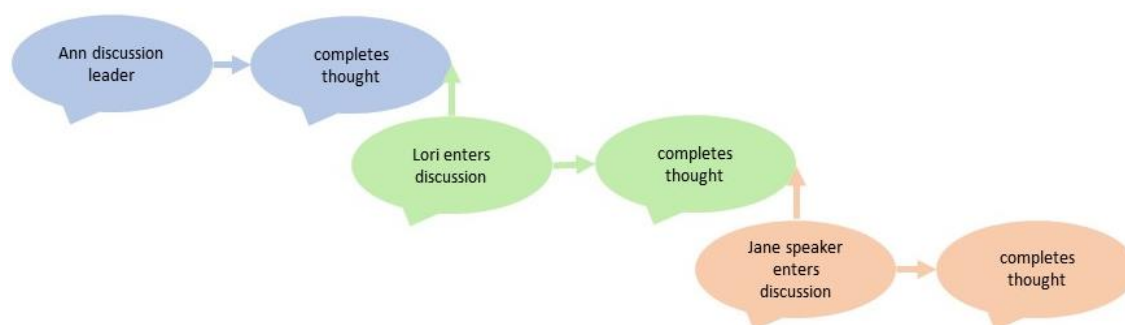
Goal-orientated dynamics were behavioural dynamics, chains of linked behaviours that followed a specific trajectory to achieve certain purposes within the focal group. Goal-orientated dynamics were the product of behavioural patterns that self-organised and emerged as the focal group experienced changes in its contextual circumstances. The behavioural patterns represented conflict, closeness and control (Pincus, Fox, Perez, Turner, & McGeehan, 2008) emerging to influence focal group leadership dynamics, defined roles and relationships that existed within the group.

Conflict is a process where two members express disagreement with each other (Pincus et al., 2008). Closeness is defined as the level of agreement expressed by members and control is the level of influence a member has over the behaviour of a group (Bales, 1999). The level of agreement reflected the personal history between members and outstanding individual needs. A member's influence over other members was rooted in the personal histories they shared and the level of professional status and seniority they held. There were three goal-oriented dynamics that were experienced: gapless discussion [GD], over-speak [OS], or jump-in [JI].

A gapless discussion occurred when one member completed their thought, and another member entered the discussion with no discernible pause or break between speakers (see Figure 4.3). The emergence of a gapless discussion tended to occur among members that experienced closeness when one member actively supported another member's leadership. The support provided either strengthened a leader's perspective or protected a member in a leadership position. The level of closeness that emerged represented either agreement on a focal group issue or a

long-term personal and/or professional relationship (i.e. Ann and Jean). Closeness allowed either a formal or informal group leader to receive support from another member in the form of a gapless discussion.

Figure 4.3. Gapless Discussion



In the example below Jean and Ann use the gapless goal-oriented dynamic to support Ann's leadership of group interplay and defend against Lori attempting to regain leadership (Doc 4-1, Line 651-657).

Jean: [GD] I certainly can.

Ann: Get it on – maybe onto a memory stick or something.

Lori: [GD] Louise or Kate be able to do it – I don't know how to do it but they might.

Ann: Yes, actually Di can probably do that. Di when she comes back, ask her to do it.

Jean: [GD] She can just get it off Moodle?

Ann: [GD] Well Um

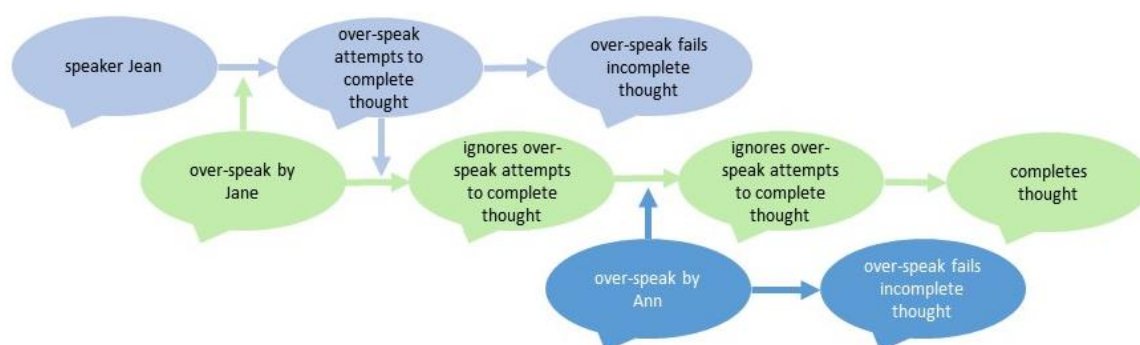
Jean: [GD] As an electronic copy (Doc 4-1, Line 651-657).

Ann and Jean are the two members with the longest focal group tenure and have developed a sense of closeness, allowing them the opportunity to enter a discussion quickly and control its outcome (recall Table 4.1).

Over-speak was another goal-oriented dynamic, defined as when one member enters a focal group discussion by talking over a speaker that currently has the floor (see Figure 4.4). The focal group experienced over-speak when a member(s) attempted to gain leadership control of a discussion and its outcome to meet a group goal. Over-speak was evident and freely used within the focal group due to the informal hierarchy that existed, a hierarchy that was representative of the ranking members had within the group that was based on seniority, professional status and specific status (Ridgeway, 2001). Over-speak was experienced when

changes in contextual circumstances required a change in group function that either did or did not place the focal group's integrity and identity in jeopardy.

Figure 4.4. Over-Speak



Over-speak was also used when two or more members were in conflict seeking to gain control of a discussion outcome, while they continued to attend to the opposing views and information actively. Shared information offered during an over-speak carried greater validity (Larson et al., 1994) than unshared unless the unshared information was provided by a member who held a high rank within the focal group (Stewart & Stasser, 1995). Multiple instances of over-speak occurred during the same discussion as members attempted to assume leadership control through their ranking within the group.

In the following segment, Jane was successful in using over-speak to gain focal group control only after she was successful in completing her thought despite incurring over-speaks or jump-ins from other members. Jane enters Jean's discussion using an over-speak, which she continues to use while Jean attempts to finish her thought after she applied an over-speak. Jean's use of an over-speak failed to allow her to complete her thought, while Jane did complete her thought. Jane's use of over-speak was effective towards the eventual facilitation of focal group goal attainment of solving an issue of hours and contact time with students (Doc 6-1, Line 629-634).

Jean: So, that means that we can't just let them do it at external vocational program provider in [First Program] award, and we give them, and us give them advanced standing we cannot do that, but we can still run units. I would of thought this was possibly run units that are made up of several external vocational program provider in [First Program] award type modules so that we so that we with our contract stuff we could

contract external vocational program provider in [First Program] award people to do it. But the University [UT]

Jane: [OS] but we can't teach them [UT]

Jean: [OS] [AF] In Moodle Yeah [UT]

Jane: [OS] [AF] No we can't teach them because there is a different [UT]

Ann: [OS] No Can't [UT]

Jane: [AF] [OS] No there is a different time allowance given to external vocational program provider in [First Program] units compared to University units. So, to teach an external vocational program provider in [First Program] unit competency requires more hours and contact time with the student... (Doc 6-1, Line 629-634).

The use of a jump-in was another goal-oriented dynamic used to gain control of a discussion and alter the outcome of a discussion (see Figure 4.5). A jump-in differs from an over-speak due to its intent and effect; a jump-in provided the opportunity for a member to assume focal group leadership with the intent of either facilitating group goal attainment or meeting a member's individual need.

Figure 4.5. Jump-In



The emergence of a jump-in was experienced when the focal group was required to adapt to a change in its contextualised environment that was perceived to lead to a shift in its behavioural equilibrium state. The effect of a jump-in was to abruptly assume leadership control and change the group's adaptation perspective that caused either a temporary upheaval in group function or dysfunction. When dysfunction occurred, the conflict was present affecting member attention to both shared and unshared information due to deindividuation (Fiske & Taylor, 2008). Deindividuation is the decreased attention to members that are perceived to be focused on meeting individual needs over the attainment of group goals and a breakdown in communication.

Dysfunction was a result of the focal group perceiving adaptation to changes in their contextualised environment as threatening their identity and integrity. Where the group's informal leader (Ann) led a resistance to change because adaptation meant that she would not be able to meet a key individual need, the maintenance of the group's identity and integrity. Ann would seek to meet this need through group interplay, and the use of her powerful influence (high group status) (Hackman & Morris, 1975) applied in isolation or with a coalition (McGrath, 1991) to resist adaptation. Members that used a jump-in were typically those who held a high degree of seniority and professional status within the group while having a strong sense of the group's fundamental identity (Doc 1-1, Line 831-834).

Lori: The only thing that's right, for people who are teaching those units, say its 388 is offered in T3. If there was I mean you may just change the details of the assignment tasks, but that means it will be [background noise stapler?] but that means that in T3 in some of the people going in it will be possibly be in the B NEC Primary, so they won't be working in [First Program] Centres. So, if your assessment task just that general bit is worded in such a way that means that they'll be in a centre doing stuff, you might want to think about just changing the wording [UT]

Ann: [JI] But, we can't change the [Placement] days in those 300 units, are for early childhood, and that's in our giant list of things. That's where the sheet that Liz and I developed - this one we sent to everyone, where it says underneath where those people wondered where we said, "The content has to be birth to five, or three to five, or birth to eight", and we've identified which days are birth to eight and which are three to five [UT]

Lori: [JI] So is there any [UT]

Ann: [AF] [OS] So we have to follow them for those because they help us add up to 20 days of birth to two, and 25 days of three to five, which are the totals we have to have. (Doc 1-1, Line 831-834).

In the above example, Ann used a jump-in in an attempt to assume discussion leadership from Lori, but Lori tried to continue with her train of thought by countering with her use of her own jump-in, but she was unsuccessful. Ann used an over-speak and maintained control of the discussion and ultimately the leadership of the focal group. She directs the discussion to focus on the protection of the current award units through the need to maintain historical unit offerings. Ann held a high level of self-efficacy with her use of jump-in and over-speak that was

supported by the level of seniority and professional status she held within the group (recall Table 4.1).

Dyads and Triads

Dyads and triads were experienced when members of the focal group identified with a member who was attempting to assume an informal leadership role. Members of a dyad or triad sought to meet similar individual, or congruent needs. The support enabled an emerging leadership dynamic to either press or resist change where an informal leadership dynamic emerged (see Figures 4.6 and 4.7).

Figure 4.6. Dyad

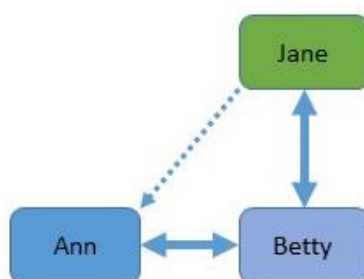
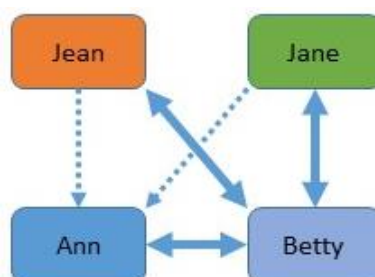


Figure 4.7. Triad



Members were involved in an ongoing exchange process that defined their level of interplay towards meeting individual needs (McGrath, 1991). Dyads or triads were formed when members perceived value through joining these subgroups towards meeting individual needs.

The expansion of membership involvement was an aspect of improved attainment of individual member needs, through the increased influence of those involved (Hackman & Morris, 1975). The influence came in the form of social influence where persuasion, is applied to influence other members thoughts and actions with the expectation of conformity, and obedience (W. Mason, Conrey, & Smith, 2007). The

dyad or triad exposed the focal group to social influence and the use of persuasion to change opposing attitudes.

Formation of dyads and triads demonstrated the stability and reinforcing nature of the interplay between members who held shared mental model structures which reinforced the formation of similar structures in the future (Carley, 1991). Further triads involved more complex interplay dynamics with the introduction of an additional member into a relational exchange (Heider, 1958; Krackhardt, 1999). Triads are created to fulfil either competitive or collaborative motives and depends on the stronger desire of the two leads to distinctly different outcomes (Uhl-Bien, 2006).

Dyad and triad sub groups were demonstrated by the focal group during the 12 months of observation. A solid blue line represents the focus and direction of the interplay between members of either a dyad or triad. The dotted blue line indicates the direction of support offered by a dyad or triad. In figure 4.6, Betty was leading a focal group discussion towards an outcome that ran counter to the individual needs of Jane and Ann. Jane formed a dyad with Ann, giving her support as she attempted to assume leadership control of the group. In figure 4.7, Betty is leading a group discussion towards an outcome that ran counter to the needs of Ann, Jean, and Jane. Jean and Jane form a triad coalition to support Ann as she attempts to change the direction of the discussion towards a more desirable outcome.

Common or uncommon needs held by those within a coalition were met through the formation of the coalitions. Commonly held needs occurred when members of a dyad or triad were seeking to meet a similar individual need. For example, a common need could be rejecting a task because the perceived outcome of the task ran counter to the individual needs of the dyad or triad membership.

In the segment below, Lori attempts to assume focal group leadership from Jean but is unsuccessful due to the formation of a triad of support for Ann, composed of herself, Jane, and Jean. Ann enters the discussion, questioning the change to [placement] portfolios, seeking to meet her individual need to maintain the focal group's fundamental identity and keep the functional integrity unchanged. Jane and Jean join Ann and form a triad, where they all present the same common goal of

keeping group identity unchanged by maintaining its fundamental identity. Ann eventually takes over the leadership of the group to enable her triad to meet their common individual need, stopping the group from changing how it functions (adapting their portfolios), thereby maintaining their group's identity (Doc 11-1, Line 348-440).

Katie: Okay, so we've covered that second bit, my – I just put my name there just because you need to officially say that I have, you know, done the deed. So, okay, any update on anybody's [placement]? There was obviously some discussion which I missed about documenting completion of the embedded [placement]. I mean, 391 just has, like everybody else, has a signed document from the supervisor [UT]

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Ann: [OS][AF] That's one part we talked about last month, was that if everybody who is a unit coordinator clearly and consistently has the one and two days are an assignment, and they only say people ought to have completed that if they have some sort of documentation, then Barb or any other course coordinator can confidently say, all our unit coordinators have two assignments plus in these five or six units, one or two days of professional experience and if the student has passed the unit then they obviously have submitted some kind of documentation to the unit coordinator. That's one part of it, and then it's they simply want something in a physical record, that's another step and stage.

Jane: Well, if as you say, it's recorded as an assignment and as a record that they've passed the assignment, then – I mean, you can set the unit up to say they have to pass this assignment and you can't fail that to get a [placement] and get through on the aggregate of your other two assignments. I mean you can manage that [UT]

Ann: [JI] It should happen like because that's what it is for all the other [placement] now from next year.

Jean: But wasn't that what Sue, Donna and Ann were going to get together [UT]

Ann: [JI] No that's not about the one and two days, what I'm saying; we need to get this clear. This idea of documenting and Barb's concern is that after one and two days, the other polar issue is about the embedding of [placement], particularly in some of the seven new units, and those are five and ten-day [placement] and I mean they are two different things.

Jean: [GD] I'm sorry, okay, okay.

Jane: So where are we at then and [UT]

Jean: [OS] Have we – yeah [UT]

Jane: [OS] [AF] of documenting the [placement] [UT]

Jean: [OS] In the little ones.

Jane: [OS] [AF] in the little ones. Well, it would apply to any [placement], it's

- Ann: [OS] the five and ten goes through the [placement] office [UT]
 Jane: [OS] [AF] not just for the [UT]
 Ann: [OS] [AF] That why I am saying we have to [UT]
 Lori: [OS] We have some student files [UT]
 Ann: [OS] [AF] separate them.
 Lori: [OS] [AF] there, quite different. Unless Barb Brooks is concerned, and I guess she's feeling very [UT]
 .
 .
 .
 Ann: Gotcha, okay it's the one and twos that we developed from the cut four and five days.
 Lori: But are they a separate assignment in the unit?
 Ann: Yes, those one and two days are [UT]
 Lori: [OS] [IS] [quite voice]
 Jean: [GD] And do all of them say, you must pass this component to pass the unit [UT]
 Jane: [OS] Or do you seek out the value of that assignment [UT]
 Ann: [JI] My understanding is [UT]
 Jane: [OS] [AF] [IS] [UT]
 Ann: [OS] [AF] that's what was going to be changed in the review of the units at the beginning of this year [UT]
 Barb: [OS] Wayne did he say that if they don't pass then, they're not going to get through.
 Jean: Not unless it says [UT]
 Ann: [OS] umm [UT]
 Jane: [OS] If it doesn't [UT]
 .
 .
 .
 Lori: [GD] Okay that's fine (Doc 11-1, Line 348-440).

The formation of a triad was confirmed by a field notes entry that interprets what I observed during the discussion on portfolios (Doc 11-3, Line 34-46).

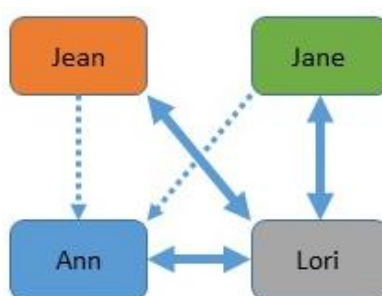
3. Katie led DC on this item.

- Ann quickly entered the discussion and expressed her desire to do things as they have been done before.
- Maintain the large [placement] portfolios and one small portfolio.
- There was no practical basis given by Ann to support her argument.
- Jean, Jane and Ann formed a dyad against Lori discussion (see Figure 4.8)
- Jean talks with Jane and Ann with Ann and Jane talking to each other and Ann and Jane talking to Lori.
- Jean to Jane discussion is a sidebar (twice)
- Jean offers a joke as an attention getter.

- *Ann also used a louder voice as a method of dominating the discussion and using over speak.*
- *Jean used simplistic questions or a demonstrative statement as a method of attention getting and to assume the leadership of the [focal group] when she was not directly included in the (Doc 11-3, Line 34-46).*

A member who entered a dyad or triad relationship with an uncommonly held need saw the opportunity to have one of their needs met through their inclusion in a dyad or triad.

Figure 4.8. Triad Discussion Network



In the example below, Jean assumes control of a discussion from Lori regarding changes to university workload policy and the definition of what academic research is (Doc 6-2, Line 9-14; Doc 6-1, Line 1671-1785).

Lori: Um and then workload can just I just want to suggest we have not had team leaders meeting because we have not had anything we have not had any this year. It has gone back um Fred's decisions to work out workloads, and we are not doing it until later in the year. You know which I actually thought it was part of our system in the school that how people got a say what was happen that you had a team leaders meeting. But maybe that's now happened at school meeting you don't go you don't get say.

Jean: [GD] Umm except in workloads that's not um in the workloads um agreement you know the course work agreement that has never been an issue. Level is not an issue it never gets mentioned. It certainly [UT]

Lori: [OS] Except the [UT]

Jean: [OS] [AF] amount of research you do but just because someone is a prof doesn't mean they do less research that a level B in fact often not. With the level, B's are up and doing there PhD.

Barb: Yeah

Jean: [Laughing Self]

Lori: I think it's become different when um the way the research is counted there has been a lot of um nibbling last year at team leaders about the way that research is counted and how much is given off for that.

Because that does impact on people who are A B C or someone who doesn't do much research [UT]

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Jean: [OS] [AF] Like across the University that's very common. So, it is not Barb because she works hard all the time. But a lot of prof do so it isn't about profs, often the most research active are those who are very ambitious, and they are being driven as so do you know what I mean. So just that if you want research, active comments get research active people.

Ann: People yeah and I think we should ensure and to have beyond the team two extra people and make sure we one of them who is a really really good example of research active.

Jean: Yeah

Lori: Yeah

Ann: Just suggest that to them [UT]

Jean: [OS] Get like [UT]

Ann: [OS] [AF] like Neil [UT]

Jean: [OS] [AF] Neil he gets a lot of publishing and stuff and he is an Assoc Prof he is the level, but [UT]

Lori: [OS] Not to be as big as that that they did not want the whole continuing faculty 13 or whatever it wanted a smaller group [UT]

Jean: [OS] Yeah

Lori: [OS] [AF] confiding and that's a continue [UT]

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.
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Ann: [OS] [AF] and get somebody who does know research and somebody who does a lot does a lot of post-grad [UT] (Doc 6-1, Line 1671-1785).

Jean presents an opposing view that changes could not be made to existing policy or the definition of research due to union work agreements that were in place. Ann joined Jean to form a dyad that presents a united front against the proposed policy changes and recommends a further consultation before a proposal is brought forward. Jean had assumed control of this discussion to meet a unique need that Ann does not share; to have her consulting work still defined as research—Ann rarely performed consulting work. A member who was involved in research could buy out some or all their assessment marking depending on how much research they were actively performing. In the example below, Jean confirms her position on performing consulting work (Doc 1, Line 524).

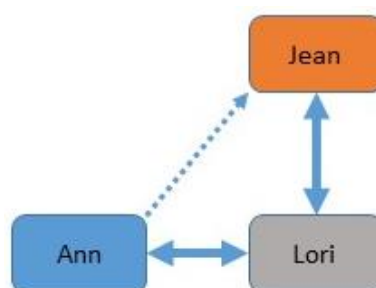
Jean: See I b- I earn a lot of money in consultancies because there's a lot of money in leadership. So, I thought I had all my marking paid for (Doc 1, Line 524).

Jean was successful in gaining control of the focal group and in getting Lori to agree that further consultation with other sources within the university was required before further disunion of changes to how the research was defined. The quote below was taken from my field notes and confirmed the formation of the dyad and my interpretation at the time that Jean was more focused on meeting an individual need a more equitable teaching loads versus facilitating the group in goal attainment (Doc 6-2, Line 9-14).

2. Jean outlines how workload policy was set in the past and was effective.

- *Lori argues her point, but Jean and Ann (dyad) challenge her position Lori argues for equality with workload allocation across academic levels (see Figure 4.9)*
- *Jean has a personal interest in this topic and pushes that bias.*
- *As is self-serving her teaching loads versus the teaching loads carried by other lecturers*
- *Lori argues that not all professors are research active and could take on more teaching load (Doc 6-2, Line 9-14)*

Figure 4.9. Dyad Discussion Network



Jean frequently formed dyads with Ann in support of Ann's position on an issue before the focal group. The basis for Jean's support was the close personal and professional relationship she had with Ann that dated back to the group's inception (Doc 20-4, Line 96).

2000. Jean, Jane Doe, Sue Smith (started February, senior lecturer), Jack Brown (full time PhD student; 10% ECE), Cherry White, Associate Professor Ann [Program Director), Barb Jones [teaching EDST 416 Young Children and Language Diversity) (Doc 20-4, Line 96).

Jean experiences a sense of accomplishment, inner harmony, and friendship (recall Table 4.1). Jean's professional and personal relationship with Ann was very apparent when Ann went through her significant staffing problem that occurred during the focal group's early history (Doc 2, Line 501-511).

Ann: Well, in terms ... in terms of the really tough time, um, there are one (Jean) or two members of the team who were always supportive of what I ... I said and did and what the head of school did along with me (Doc 2, Line 593).

4.6. System Shock

In the following section, I will outline three system shock scenarios the focal group encountered. Each system shock created a change in the group's contextual circumstances that created a need for the group to adapt its dynamics and demonstrate a change in its behaviour. The effect of changes in the group's contextual circumstances was related to a member's perception of the threat to its fundamental identity; the greater the perceived threat of change to its fundamental identity the greater the shift in the group's leadership dynamics.

Intra-Group System Shock

An intra-group system shock that the focal group incurred was the loss of a member (Liz), which is not an uncommon occurrence within any group. The loss of a member did not affect the focal group's fundamental identity and allowed the group to maintain their behavioural equilibrium. Liz had left the focal group the month before the start of this study. The workload was taken over by Jean until Liz's position could be filled, which did not occur immediately upon Liz's departure from the group (Doc 1-1, Line 261-265).

Lori: [GD] But overall at this stage as it has gone on, it will have similar numbers as last year, and of course Liz left but we need to look at our jobs, and because Liz left and Sue to Maths. [UT]

Group: [SB] [IS] [OS]

Group: [Laughing] [OS]

Ann: [OS] And Jenny is away this semester [IS]

Jean: Combined support from all of you or I'll leave as well (Doc 1-1, Line 261-265).

Lori, in the role of formal leader, outlines the course of action she had initiated to fill Liz's position permanently. The focal group's leadership was contested by Jean regarding how Liz's position should be filled (Doc 2-4, Line 25-27).

- *Discussion led by assigned topic leader Lori.*
- *Lori and Jean dominated the discussion.*
- *Individuals were assigned tasks to address as they deemed by topic knowledgeable individuals (Doc 2-4, Line 25-27).*

Katie, using a jump-in, successfully gains the leadership of the focal group with the support of Jean (dyad). The group immediately accepts Jean in this role as she facilitates a resolution to the staffing problem caused by Liz's departure. Katie's solution is to get a past casual contract staff she had worked with to assume part of Liz's workload, marking assignments. The group immediately accepts Katie's solution, which enables the group to maintain its fundamental identity and behavioural equilibrium state (Doc 2-1, Line 387-414).

Lori: [AF] [OS] and Tammy has agreed to take because there were so many people in 344 to mark the excess, so I've got to do her thing up, and I think the other one I'm not sure of is Rita Evans, I am not sure [UT]

Katie: [JI] Yes Rose I've been in contact with Rose, and she and her husband are moving to Japan [UT]

Lori: [OS] Oh okay.

Katie: [AF] [OS] in May but she said she could, if she can access them online, and she could mark online which I assumed she can still that by Moodle, she can do that [UT]

Lori: [JI] Because you weren't here with Moodle last trimester? It works the same; you can still access everything.

Katie: [AF] [JI] So you'd go into the assessment section she could pick them up there?

Lori: Yes just on that but just go in on the Moodle page. You just go into your relevant assignment, it's tells, "New Assignments," and they are all there.

Katie: Absolutely fine. So, I can give her access to better give her access to the unit then?

Jean: [GD] So if she's moving over in May, and that's when the assignments are presumably due around 21st or something like that, how is she to manage that?

Katie: [GD] The assignments are due in a bit earlier as it's a trimester rather than a semester, so are [UT]

Jean: [OS] Due in [UT]

Katie: [AF] [OS] due in a bit early [UT]

Jean: [OS] Yeah so, the big thing coming in [UT]

Katie: [AF] [OS] If I sent the first ones to her, and then I pick up the tail end [UT]

- Jean: [OS] Yeah, yeah, yeah.*
Katie: [AF] [OS] that's when we could probably do it.
Jean: [GD] So, is she moving end of May?
Katie: [GD] Yes, I think it's the end of May,
Jean: [GD] Oh okay.
Lori: [GD] Yeah (Doc 2-1, Line 387-414).

During the February 2012 focal group meeting, the group became aware of unknown job duties that Liz was responsible for that had not been assigned to another member. Jean assumed group leadership of this issue, where she created an open-ended action plan that was immediately accepted by the focal group, despite not being assigned a member to implement. The discussion led by Jean was void of over-speaks, jump-ins, or gapless discussions which implies the group readily recognised her experience, seniority, and level of professional status by remaining attentive during Jean's leadership (Doc 2-1, Line 657-663).

- Jean: Now I've got here [First Program] award National Association] do we still have an [First Program] award National Association] rep?*
Lori: It was Liz.
Jean: Yes, that's right, that's why I moved the name that's why the question mark's there. I remember now, sorry because it said, Liz. So, we don't have a replacement no one has volunteered since you were away.
Sue: No one has volunteered for that.
Jenny: She did approach Mae to take it over, but I don't know whether Mae has or not. Mae was thinking about it I think
Lori: Because it's not it's a regional rep, isn't it?
Jean: Oh yes, it is, it doesn't have to come from us, it just often does because we can get away and all that sort of stuff, but umm, okay so we need to follow up, just the as an action, to check with Mae if she's decided to do it (Doc 2-1, Line 657-663).

In July 2012, during the monthly focal group meeting, Ann (informal leader) presented a solution to the coverage of Liz's workload. The head of school, Fred was at this meeting, where Ann presented her solution framed as an ultimatum. Ann stated that she would assign Barb Liz's workload if that position was not filled in the immediate future. Even though it was not apparent that Barb was given this position from the meeting transcription, an excerpt from the minutes of that meeting did confirm that this would occur (Doc 7-3, Line 20).

If Liz's position has not been filled, then Barb will be able to coordinate FSPT 388. If Liz has been replaced, there may be contracted positions to fill both Sue and Katie's' positions (Doc 7-3, Line 20).

The focal group immediately accepted Ann's solution for coverage of Liz's workload, with no input from Fred, the head of school (Doc 7-1, Line 712-717).

*Ann: [OS] [AF] doing – are we going to have her do this form? Is she being paid enough as a casual and know enough about BBCCFRE to do this?
 Jean: I'll work with her on it
 Ann: Will you send it to Jean then and then Barb. She will work with Betty 388 History
 Lori: That was Barb
 Ann: We're going to give that to Barb
 Mike: [GD] Is that Barb as well? (Doc 7-1, Line 712-717).*

Fred (head of school) attempted to fill Liz's position in November 2012, but all the applicants he received were turned down due to being unsuitable for the position. Lori (formal leader) raised concerns regarding the advertisement placed by the school for the reason why they had received unsuitable applicants (Doc 11-1, Line 255-265).

*Lori: [GD] And I would suggest that we ask to review the ad, so if we didn't get anyone we could call [UT]
 Group: [OS] oh
 Lori: [OS] [AF] I don't know what – we suggested changes, and we never heard went out.
 Ann: [GD] I didn't know exactly what we had put up, you know.
 Lori: [GD] And we might want to ask – think about whether or not we want to ask for one position
 Ann: [OS] One lecturer C [UT]
 Lori: [OS] [AF] one C and one C/D? Because we could and ASCRO to come, and we might get someone more qualified if there's a chance of there being ASCRO; and that way that's when you start getting someone from universities, you now, they're looking for – I'll go to University for a couple of years, I'll get an ASCRO
 Group: Yeah.
 Lori: I don't know who – I'm not going to be here to carry on with this, that will be you, Jean, as a team leader.
 Jean: Darling
 Lori: (laughing)(self) So um we will need someone to – the unit coordinators can't be blank. The 101, but we can get people on contract [UT] (Doc 11-1, Line 255-265).*

Ann attempts to gain control of the focal group using a jump-in and offers unshared information to support her assumed group leadership role. Lori resists Ann's efforts to assume leadership of the group by pressing forward with her solution to fixing the school's issue of finding a suitable replacement for Liz's position. The focal group immediately accepts Lori's solution despite Ann's continuing attempts to take the leadership role away from Lori (Doc 11-1, Line 282-304).

- Lori: [OS] [AF] Yeah, so we're still a bit short; we'll have the markers, but we're a bit short on the on-campus stuff, so because really the areas that are mine and Betty doesn't have a big load, and I'm not here, so that's why we're a bit short on people. The rest of it will – we will need markers, and it all depends on numbers so – but if you do meet someone local who would like to do some – there's also Dana Pank I discovered worked a lot with [First Program] award, she used to consult about transitions from [First Program] award to school [UT]*
- Ann: [OS] What with the department or [UT]*
- Lori: [OS] [AF] She's worked in the English team has she to learn the experience?*
- Ann: [GD] Where was she doing that then?*
- Lori: I can't remember now, I think they were down the coast; her and her husband moved up here [UT]*
- Jean: [OS] She's here at uni working [UT]*
- Lori: [OS] [AF] She's working with the English team, but [UT]*
- Ann: [OS][IS]*
- Lori: [OS][AF] when I spoke to her about [education] she was so excited like I said, have you had any experience? Have I had experience [UT]*
- Ann: [OS] So was she working for DET at that stage?*
- Lori: Maybe she was [UT]*
- Group: [OS][IS]*
- Lori: [OS][AF] maybe that's what it was because I didn't write it down [UT]*
- Ann: [OS] Or was it DOCS*
- Lori: [OS][AF] she might with Fred working with DET pre school [UT]*
- Ann: [OS] with 500*
- Lori: [OS][AF] you know [UT]*
- Ann: [OS] 500 preschool*
- Lori: [OS][AF] yeah. So now this Chinese study, the English team has gobbled her up again (Doc 11-1, Line 282-304).*

The resolution of this system shock occurred during the last focal group meeting I observed in January 2013. Jean (formal leader with Lori on leave), outlined that the school of education had placed advertisements for not only Liz's position but also for Katie's recently vacated position. The focal group responded immediately with their support of the move to fill these two positions (Doc 12-1, Line 420-428).

- Betty: Ok, any more discussion on this? Next item is workloads and staffing, Jean*
- Jean: Ok, staffing, as you all know we are short staffed for the coming year [UT]*
- Jane: [OS] That is the understatement of the year (Laughing) (Self)*
- Jean: [AF] [OS] and we were seeking two more full-time staff.*
- Barb: [GD] Workloads*
- Jane: [GD] So they agreed to fill both Liz's and Katie's positions, that was quick, what is the catch?*
- Ann: [GD] Both positions?*
- Jean: [GD] Yeah you are right both Liz's and Katie's positions.*
- Jane: [GD] That will be a big help because as you know, the numbers are up (Doc 12-1, Line 420-428).*

Extra-Group/Intra-Organisational System Shock

An extra-group/intra-organisational system shock that the focal group dealt with was the school's requirement that they write and provide face-to-face on-campus units for the [New Dual Degree] award. The group was required to adapt to an atypical problem that was an uncommon occurrence. In the group's agenda for January 2012, Lori had listed an agenda item to discuss how the group would teach face-to-face units in 2013 for the new [New Dual Degree] award. (Doc 1-3, Line 8). Quotations that appear in the purple text are taken from the group's monthly meeting agenda.

I'd also like, at this time, to flag the possibility of the team exploring models for face-to-face teaching, which we will be engaged in in the new [New Dual Degree award] in 2013. How we envision our face-to-face teaching, and its relation to the off-campus generation will influence how we design our units. We do not have to follow a "lecture + tutorial x2" model. We can create different models for different units, and we can be creative about what we believe is the best use of face-to-face time (Doc 1-3, Line 8).

During the January 2012 meeting, the focal group expressed concern over how they would offer face-to-face units. The group expressed concerns on how to resolve the problem, with no one seeking to take leadership on this issue, preferring a hands-off approach—an approach supported by the lack of over-speaks and jump-ins during the discussion of face-to-face teaching (Doc 1-2, Line 33-40).

- 4. Discussion led by Lori team exploring models for face-to-face teaching, which we will be engaged in in the new [New Dual Degree] award degree in 2013. The [focal group] has had little experience with face-to-face teaching.*

- *The team was offered help by one of their [focal group] members Sue and a plan to meet and explore strategies for face-to-face teaching.*
- *The team members were very nervous about this change to face-to-face teaching.*
- *This nervous reaction was evidenced by the unsure need for how much time these face-to-face sessions should take one to two days to 1 – 2 hours.*
- *The team agrees to one 2-hour session.*
- *With the [focal group], unsure how to approach this topic there is very little [OS], [JI] and/or [SB].*
- *The [focal group] is very attentive how they will deal with this new face-to-face teaching requirement (Doc 1-2, Line 33-40).*

The following focal group meeting in February 2012, Lori uses her formal role as group leader to emphasise further that it will be providing face-to-face units as part of [New Dual Degree] award. Lori used a series of over-speaks to maintain control of the group's leadership during a discussion of this issue (Doc 2-1, Line 681-696).

Lori: [OS] [AF] You know, I'd just like some time to discuss if we do sometimes have for time reasons, it might be better to have them all together at one stage but how best to use that time? I know Jane Doe, and Joe Blow did some interesting stuff, and they actually won an award for this dialogic teaching that they do. Because they are restricted by their University says, "Sorry you go and have as many faces to face hours," but they're restricted, and they have bouncers on doors. they enrol more people in the units; then there are seats in a lecture theatre, and they are only allowed to have one or two, whatever they choose. So, everything's available online and if you don't get there before the lecture's full you're out. So (Laughing) that's really interesting the sort of thing the other institutions do [UT]

Group: [OS] (Laughing)

Lori: [OS] [AF] sorry and Mary McGennee's daughter had the same experience at UNSW. She was on a different course. Sorry if you don't get there early enough you don't get in. So, the whole idea of what they actually do in that space, if you have to do that because of time, how to use that time when they're all together, and Andrew and Anne always do both do it together.

Jean: Mmm.

Lori: So, as they can make the most use of the dialogue between the two of them and the students and what's happening. You know, so yeah it might be interesting to discuss [UT]

Group: [OS] [SB] [IS]

Lori: [AF] [OS] Before we put the stuff in I guess, in the next eight weeks, because when you're designing your unit, like you think I always think of how it's delivered, for how I'm designing it.

Jean: Mmm, mm.

Lori: Maybe I want to rather than having ten topics with ten weeks, maybe I want to think about it. Differently, I don't know.

Sue: But the other thing is, people might be interested in Team teaching too, to think about doing that.

Jean: Yeah.

Lori: Well what Andrew and Anne's experience was, that it didn't, even though it was more face to face time, they both went to it, and it didn't seem to take time (Doc 2-1, Line 681-696).

Lori placed emphasis on the need for the focal group to address the issue of face-to-face teaching in her effort to facilitate group goal attainment. If the group offered face-to-face units, which they had never done before, they would be changing their fundamental identity—a change that was resisted mainly by Ann. Despite a lack of discussion on this issue, Sue, an ex-member, offers to assist the group in learning how to teach face-to-face units. The group immediately accepts Sue's offer of help, and they arrange to have a workshop to learn how to teach face-to-face units (Doc 2-1, Line 704-713).

Lori: And when you have you've got an off-campus generation and on campus? How do you manage that? You know, because I've started thinking, "Wow I could do this on campus and this I'm thinking, oh but then the off-campus ones will be separate". You know, how do I what do I do so that it's fair to both? But the people who do make an effort to come here, that face to face alone is what they're here for, yes.

Jean: So, we need to are you thinking that we need a special meeting because I can't see how we'd get it into [UT]

Sue: [OS] Yeah, I agree

Jean: [AF] [OS] I mean these agendas [UT]

Lori: [OS] No, no

Jean: [AF] [OS] there's not much on the agenda, but it always takes an hour (Laughing) (Self)

Lori: Yeah, yeah, I might come up with a different word than meeting, but I haven't yet you know (Laughing) it sort of you know [UT]

Jean: [OS] We'll have a retreat. (Laughing) (Self)

Katie: [JI] Well have a workshop

Sue: [GD] A workshop (Doc 2-1, Line 704-713).

In the minutes of the February meeting Lori presents a more definitive outline of the need to set a date for Sue to offer instruction on how to teach face-to-face units, they will provide for the [New Dual Degree] award (Doc 2-3, Line 39).

Lori raised the issue of the face to face units in the [New Dual Degree] award and how these might be configured. A workshop/meeting has been arranged for 8th March to discuss this (Doc 2-3, Line 39).

By the May 2012 focal group meeting, the unresolved issue of teaching face-to-face units was raised again. During this discussion, Lori used over-speak to exude her formal leadership of the focal group and refocus the group on solving this issue. The group comes to an agreement that they should hire casual staff that can teach face-to-face units. The use of Sue's suggested workshop on how to teach face-to-face units seems to have been dropped. Hiring casual staff to teach these units will allow the group to maintain its fundamental identity because they would not be changing the way it functions.

The focal group's aversion to teaching face-to-face units is summed up in the segment below, where Jane was quite eager to find out how the university defines face-to-face teaching, seeking a policy and procedure that could keep her from having to teach face to face. She would have an aversion to teaching face to face because of her lack of teaching experience (recall Section Jane, p. 170) and having only taught online (Doc 5-1, Line 526-536).

Lori: [OS] Maybe through ECA we could find if the course gets approved, we might be able to advertise through like ECA [UT]

Jane: [OS] What are the schools [UT]

Lori: [AF] [OS] to teach and umm

Jane: [GD] [AF] What are the uni rules? I mean, if for example, we had the traditional lecture, tutorial format, and I'm not saying we are [UT]

Lori: [JI] They've got to have something face to face.

Jane: [GD] [AF] Yes but so, if we had us, for example, doing the lectures, could you have someone with a degree and no higher degree doing the tutes under our supervision? I mean why [UT]

Jean: [OS] Well they do in [New Dual Degree] award [UT]

Group: [OS] [IS]

Jean: [AF] [OS] [IS]

Betty: [JI] They are interesting teachers, and they see great value in that because they're teaching classroom practice, they're really current, yeah

Lori: [GD] So what we'd be looking for someone who is working part-time [UT] (Doc 5-1, Line 526-536).

By October 2012, Sue attends a focal group meeting and tells the group that she was finding casual staff and assigning members to write the [First Program] units that will be a part of [New Dual Degree] award. Sue had grown frustrated waiting for the

group to get these new units written and moved forward to get these units written by assuming the leadership of the group. Lori uses a series of over-speaks against Sue and Ann in a battle over who will lead the group on this issue (Doc 10-1, Line 305-331).

Sue: Oh, I haven't heard anything about accreditation yet. Um but in terms of unit development I have received quite a number of people interested in developing units [UT]

Lori: [OS] oh good

Sue: [OS] [AF] especially the first two units.

Lori: Oh, that's good there are the ones that we reckon have to be done.

Sue: My thought was by Friday. I got another one today I think, by Friday I am going to take a look at which ones' people are interested in and send them off to like if I send you say um if I send you tomorrow the ones that I have [UT]

Lori: [OS] 101

Sue: [OS] [AF] Finished [UT]

Lori: [OS] Yeah

Sue: [OS] [AF] who would be the best person based on them, what I asked them is to send a CV and a description statement so. Some did a little bit, and some did well here I am just give it to me.

Lori: Laughter

Ann: [GD] if they gave past what you asked than maybe [UT]

Sue: [OS] they are alright so [UT]

Ann: [OS] [AF] it isn't the way we wanted it either so [UT]

Sue: [OS] [AF] Liz is interested in writing hers, and I think we will just do that. I do not think I will. And there was one other person kind of maybe sort of might have been interested in the unit so. Um, I think we will let her for sure. I thought I'd have the approval of the team and I would just say yeah [UT]

Lori: [OS] yeah

Sue: [OS] [AF] And so we have a few people to look to look over there. And that is what I will do I will send them to the individual people [UT]

Lori: [OS] 101 which you will send to me 102 will go to Jane.

Sue: Yeah

Lori: 103 will go to Betty

Katie: I seen the stats and they are going along really well.

Sue: It was just the core.

Lori: It was just the three of them

Sue: Yeah, it was just the three of them.

Lori: Okay

Sue: So, I think that looks good, so I will get them on board um people on board right away to get the start on things um.

Lori: Now I think Liz asked me what I thought about what the details was we have not actually done that up as yet, or Betty asked me you asked me

*Betty about the assignment details we had assignment tasks what we want we want them to have all the instructions as to the [UT]
Ann: [OS] that is too much to ask (Doc 10-1, Line 305-331).*

Even with Sue getting the face-to-face units written, it still left the focal group with the need to either teach or find someone else to teach these units. The group is resisting changing its fundamental identity through the application of slow, steady resistance, provided by not developing the required new units and not offering to teach those units. The group appears to present an ongoing inability to comply with the new teaching demands. The group's covert resistance to Sue's efforts to get the new units written and taught adds support to their need to maintain their fundamental identity.

By November 2012, the focal group has grown desperate to find casual staff that can teach face-to-face units, and Lori, the formal leader, is trying to find solutions to the problem. Lori's leadership of the focal group was not challenged, and she maintains her leadership control throughout the discussion of this issue despite a series of over-speaks and a jump-in (Doc 11-1, Line 275-284).

Lori: Yes, um they haven't got much further, but I mean we not going to wait – it's going to fall to Jean to know what numbers we've got in these new units. Jane, did you actually ask Lavinia about teaching? You were going to mention it to her?

Jane: No, because you were talking to her about it

Lori: [GD] Yes just one person [laughing] [self]

Jane: I kept out, I thought one person.

Lori: [GD] Lavinia's writing 101, so we think we – I'm going to have to talk to her tomorrow, so I'll ask her about whether she's going to be available to teach; she has taught on campus, face to face, ECBG, she's very – she said their secondary level is very low there, so she's used to dealing with students who don't have good literacy skills and don't have good study skills, so we had a wonderful conversation about 101. She was very tuned into the students, and what they might need and I'm hoping she can bring at least a specific of children to the unit you know. My unit is only Anglo, and I have a little bit of Aboriginal literature in there, but it would be good if she could start to, from her experience, bring [UT].

Jean: [OS] Umm Nice great

Lori: [OS][AF] So I'll ask her about doing that, and we'll need someone – well depending how much she can do and how many students in a unit, we may need someone to teach off campus and to mark, so the Young adult's one – I'll just do the two new ones – actually the 101, we will need someone to – [SB] well, I won't be here to be unit coordinator. If we

- look like at this stage that we – well I've asked for 2.4 staff; as up to 2.4 staff on contract. Everyone says point 4 of Ann's position and a point 1 to give us that something advertised. We might get casual teachers [UT]*
- Jean: [OS] But point 2 of it though because that's long service leave. Is one day of yours [SB] a year, long service – one day a week-long service leave?*
- Ann: Until the middle of October, yes.*
- Lori: [GD] Well that her choice [UT]*
- .*
- .*
- .*
- Lori: So, and so it will have – I was hoping Sue was going to be here; apparently, as I heard from Liz, [laughing] [self] we had ten applicants for the position [UT]*
- Ann: [JI] What I can report, because it's confidential stuff, yes there were ten people who applied and the unanimous decision of the panel, was not to shortlist anyone, so that we will be readvertising, and I encouraged Fred and Joan to get everything ready so that as soon as we start advertising in January, which is like the second or third week in January, everything is ready. In strictest confidence with Katie her resignation, it should be possible; it should be a reality that we would be advertising two positions not one.*
- .*
- .*
- .*
- Lori: Okay, and the other ones will be 102, I'm sure there's bazillions; Jane Doe is currently writing that, and we thought we might ask her to do the off-campus teaching, but we will need a body on campus. Now, this is the bit I get nervous about; we have to find people who will teach on campus, we still don't have people. We have people prepared to do off campus stuff; Joe Blow who has applied to write the units if she's successful said she was prepared to one of those things. I don't know if she's prepared to come on campus. Mae has said, that depending on the timing, whatever because she works part-time at external vocational program provider in [First Program] award, that she would consider [UT] (Doc 11-1, Line 232-275).*

Lori exerted her formal leadership of the focal group to get them to consider the use of casual staff once again to teach the face-to-face units. Ann excused herself from being included in this solution due to not having the available time. Ann states that her part-time status would have disqualified her from being a clearing house for the applications from individuals applying for the face-to-face casual teaching positions. Ann's recusal from the discussion allowed Lori the opportunity to press her solution of hiring casual staff (Doc 11-3, Line 28-33).

2. Lori led discussion on staffing;

- *Lori took control of this discussion with an action plan where that involved Jean and Ann.*
- *Ann excused herself for being a part of Lori's solution saying she is too busy*
- *This gave Lori complete control of the discussion.*
- *The staffing shortage as it relates to Ann part-time status was further confirmed when Ann wanted to maintain her role as the clearinghouse for who should become contract staff.*
- *However, her current position being part-time does not allow her to do this. She was reminded of this by Lori (Doc 11-3, Line 28-33).*

Even with Ann being a part-time staff member, she was the main focal group member that had unshared information on the status of the applicants the school of education received for casual staff to teach the new units (Doc 11-1, Line 254).

Ann: [JI] What I can report, because it's confidential stuff, yes there were ten people who applied and the unanimous decision of the panel, was not to shortlist anyone, so that we will be re-advertising, and I encouraged Fred and Joan to get everything ready so that as soon as we start advertising in January, which is like the second or third week in January, everything is ready. In strictest confidence with Katie her resignation, it should be possible; it should be a reality that we would be advertising two positions, not one (Doc 11-1, Line 254).

The focal group's formal leader, Lori, would have been responsible for knowing and updating the group on the status of hiring staff for the [First Program] award, not Ann. Ann was exerting her status and power as the senior member of the group and its former leader. That allowed her to convince senior school of education staff that she still maintains a formal leadership role in the group; this does not sound like a part-time staff member. In a closing note, the focal group did not solve this issue of finding the casual staff to teach the face-to-face units by the end of my participant observation in January 2013.

Extra-Group/Intra-Organisational System Shock

The university hired [External Service Provider] based in the United States to change the existing learning management system (LMS) campus-wide to the version they offered. The change required by the university to initiate the [External Service Provider]'s LMS took the form of an extra-group/intra-organisational system shock for the focal group. The change in the focal group's contextual circumstances caused by the university's action created an atypical problem for the group that was

uncommon in occurrence. The University initiated these changes without the general consent or input from the academic staff, who had to bear the brunt of initiating the required changes, in this case, it would have been the group. The method of effecting change used by [External Service Provider] was to impose changes to curriculums and teaching processes of an Australian tertiary university to ‘fit’ into their United States of American LMS. The [External Service Provider] demanded changes to [First Program] award’s curriculum through the provision of units across three trimesters, with an intake (admissions) in each trimester (semester). Discussion on this topic was influenced using jump-ins and over-speaks (Doc 1-2, Line 18-27).

8. Discuss general issues around 2013-unit approval process.

- *Tony attends the meeting as an expert on the completion of new unit forms.*
- *The [focal group] must offer in trimester 3 units that must meet [External Service Provider] unit requirements*
- *discussion was centred on what will be taught in trimester 3 in 2013 that meet the on-campus requirement of [External Service Provider].*
- *trimester 3 units must include an intake unit*
- *Open discussion was common with frequent [OS], [JI], and [SB].*
- *Tony and Ann locked in a discussion units for trimester 3*
- *Ann used a jump-in*
- *eventually, Lori enters the discussion and duels with Ann with Ann using [JI]*
- *Ann presents herself as the led on the need for prerequisites for the new trimester 3 units and Tony is seldom included in the discussion (Doc 1-2, Line 18-27).*

As early as the January 2012 focal group meeting, the group outlined that they would use passive resistance against the [External Service Provider]’s changes through non-compliance to hold off the proposed changes. Ann and Jean formed a dyad and used a series of jump-ins to enable Ann to take control of group leadership and mount a resistance to the proposed changes to the [First Program] award, maintaining the group’s fundamental identity (Doc 1-1, Line 418-429).

Tony: Well that trimester will have to be an intake. We’re being told informally that [External Service Provider] want an intake in trimester 3 in some of our other courses, so we’ve allowed for that, but not in all of them [UT]

Ann: [JI] Ok [UT]

Tony: [AF] [JI] It is just not possible in some of our courses [UT]

- Ann: [JI] So have they said [Bachelor of Teaching], [First Program] award?*
- Tony: They did mention that, but they're more interested in [New Dual Degree] award and the [Masters of Teaching Primary Education] award.*
- Ann: [JI] Well if they have nobody told us [UT]*
- Jean: [JI] Well let's not do it as an intake*
- Tony: But if it was an intake, you would have to put that in your teaching period.*
- Lori: Well in teaching. [UT]*
- Group: [OS] [IS]*
- Tony: Prepare in the future that [UT]*
- Ann: [JI] If we don't have it now we have to do this form in the next 10 days, we're not going to do it. We've got to protect ourselves too (Doc 1-1, Line 418-429).*

The roots of this system shock were based on who controls the [First Program] award: the focal group or the [External Service Provider]. The [External Service Provider] was attempting to put a hierarchical relationship between them and the focal group that was similar to how they operate in the United States of America. However, the cultural differences between American and Australian tertiary education make such a comparison unrealistic, as became apparent during the February 2012 focal group meeting.

Tertiary education in America was modelled on a hierarchical relationship between the university president on down to the assistant professor, offering limited autonomy within the system. The Australian tertiary education system afforded their academics more control over what and how they taught. To implement the [External Service Provider]'s LMS required the university curriculums be restructured right down to the format of the website each school had to use and when the units would be offered. The focal group was feeling under siege by [External Service Provider], with their only source of support being from within the group. Sue and Lori created a dyad by applying a series of over-speaks and jump-ins to maintain control of the focal group's leadership (Doc 2-1, Line 500-516).

- Sue: [AF] [OS] One of the things that they [External Service Provider] have been talking about, is that we really have to shorten what things were called because there's a limit in terms of what you can put in that little bar, which is fine. We have to think of it, and they're trying to find some general ways to name things so that when students go from unit to unit, they have a general way of naming them [UT]*
- Jean: [OS] [Mmm]*

- Sue: [AF] [OS] However, when you get your template you will have the right to do changes and to make changes to suit what you need [UT]
- Lori: [OS] Okay.
- Sue: [AF] [OS] So that's good. They're even talking about things like the banner. whereas they showed us this hideous banner for business for somebody. it's like a black rectangle and three rectangles, so hard and so they said, "Well is this good for you," and I said, "No" [UT]
- Group: [OS] [Laughing].
- Sue: [OS] [AF] and so it's being designed. something that's a little bit more [UT]
- Lori: [JI], So we can't have like [First Program] award has a separate banner?
- Sue: [GD] We may or may not, but it fits within all it is I think it will fit into anything because there's nothing that would fit anything but one line of text [UT]
- Lori: [OS] Ahhh
- Sue: [AF] [OS] The banner is one line of text, that's it. [BN] [groans] Two-thirds of it and one-third of the page colour change, creating a black. that's it [UT]
- Group: [OS] [Mmm]
- Sue: [OS] [AF] So you know, so we'll try, and we have people on it that are doing that, though. So, I was going in oh and the other thing they said is that they do have those templates available, and Rachel has them. She's going to try and let us have some access to them. They don't want us to have access to them because they said, "No, no, no because it's not up for discussion really, and you know, you can use this template," and they said, "Well we'll keep it warm," something about – there was a big discussion about what people want. They won't mind; they're just going to say, okay that's it [UT]
- Group: [OS] [Mmm]
- Sue: [OS] [AF] And then finally, when they were going on and on, everybody was looking at each other, and I said, "Just a second. I worked in the United States of American context, and I work in the Australian context, and what you're talking about works just fine in the Midwest of United States of America. It will not fly in Australia. It will not fly with Australian teachers; they are far more autonomy than that [UT]
- Group: [OS] [Laughing]
- Sue: [OS] [AF] and they're not just going to say 'yup' [UT] (Doc 2-1, Line 500-516).

The cultural differences between [External Service Provider] and the focal group revealed a cross-cultural dynamic within this system shock that created tension between the group and [External Service Provider] (Doc 2-2, Line 14-22).

3. Sue [External Service Provider] update

- Noted lack of representation by the School of Education at [External Service Provider] meeting
- [External Service Provider] LMS to be applied campus-wide

- *Campus units made to fit [External Service Provider] and not the other way around*
- *Conflict between Sue and [External Service Provider] over the cultural clash between the USA and Australian tertiary education and, the differences between each system*
- *Academic freedom different between the two countries*
- *Forces fit will not work*
- *Group agrees with Sue perspective*
- *Group resistance to implementing the [External Service Provider] way growing*
- *The [focal group] seems to have a common enemy that they all seek to resist.*
- *Members openly will resist changing their units to fit [External Service Provider] (Doc 2-2, Line 14-22).*

The increased level of tension it did have a positive effect on the focal group, providing an issue to focus their collective energy versus being concerned by more divisive group issues. When Sue represented the group and the [First Program] award at an [External Service Provider] meeting, the stance she took in support of Australian tertiary education struck a positive chord with the group. Sue garnered consensus group support against [External Service Provider]'s position, and a heightened level of group cohesion was demonstrated. Sue, Lori, and Jean used jump-ins and over-speaks to form a triad that supported Sue's leadership of the focal group on the LMS issue (Doc 2-1, Line 537-551).

Jean: Good, glad you were there, good Miss Academic. [Laughing] [Self]

Sue: [GD] But I work with Australians.

Jean: Miss Only Academic [UT]

Sue: [JI] Wasn't that strange?

Jean: Well that was a perspective that no other academic [UT]

Sue: [OS] No, No

Jean: [UT] [OS] would have been able to bring, you knew that.

Lori: I had a feeling that all the course coordinators were asked. That's what Ann said, the course coordinators had been asked, and she was [UT]

Sue: [OS] No they weren't. No, they weren't well I'm sorry, they were kind of. Mike was asked and Ann. [Mmm, oh]. That's it. [UT]

Lori: [OS] That's interesting isn't it [UT]

Sue: [UT] [OS] And Mike didn't come.

Lori: [UT] [OS] Because Ann asked me she thought she was asked as the [First Program] award being the interim course coordinator. She assumed, I think, the way she said all course coordinators had been asked. That's interesting.

Sue: Apparently, they just want the troublemakers, because they did that again, and again with the United States of American people. We just need to get the troublemakers on board, and so I think Ann was [First Program] award [UT]

Lori: [JI] So that's why we were?

Sue: [UT] [JI] Mike was representing [First Program] award, and we were the trouble makers. [UT] (Doc 2-1, Line 537-551).

By March 2012, the focal group's resistance to the intra-organisational system shock had hardened to the point where the group simply refused to teach [External Service Provider]'s restructured [First Program] award (Doc 3-2, Line 23-25).

5. [New Dual Degree] award Jean

- The degree of autonomy that the academics have is huge with the degree of resistance they can place on a change process that is campus wide.*
- Primary exchange between Jean and Betty*
- [External Service Provider] conflict re-teaching loads, [External Service Provider] dictates unit offerings.*
- The [focal group] decides to resist [External Service Provider] by delaying their compliance with [External Service Provider] demands (Doc 3-2, Line 23-25).*

The focal group discussed the political implications of their unified non-compliance strategy to not only refuse to teach the [External Service Provider]'s [First Program] award. The focal group's non-compliance strategy was equally applied to the [External Service Provider]'s need for the group to teach three consecutive trimesters (Doc 3-1, Line 810-814).

Betty: [GD]What do you feel political about what we should do I mean if you are putting this out as a strategy for [First Program] award. I mean, what choices do we have?

Lori: Well the choice is, as I've said, we've been saying no [UT]

Ann: [OS] No one to teach it

Lori: [AF] [OS] can't be made to do it because if you have taught in two trimesters and you are research acting, you cannot be made to take it on. However, you can. anyone has the right to do it if you want to be paid for it? Some of our schools have got fees paid for summer schools. You'd be paid for instruction, yes that's not like getting paid and made to spend on whatever, it's only money you can spend on University stuff when you [UT]

Jean: [OS] and they are trying to take that away anyway (Doc 3-1, Line 810-814).

The refusal by the focal group to teach [External Service Provider]'s curriculum had placed the university in a difficult position due to having a contract with the provider to put in place their LMS and all of its required changes. The university attempted to appease the group by offering a financial inducement to at least take on a teaching load across three consecutive trimesters. However, the focal group maintained their unified stance against the LMS, demonstrating an ongoing strong level of group cohesion (Doc 3-1, Line 780-809).

Lori: [AF] [OS] and I said, we already have 344, and it wasn't on Fred's list. We already have that, I said, but you haven't got 344 there. We already have one in the third trimester, but I've been told, 310, and I've said, well the conditions are, I said, there's no one on our team who can coordinate it because we're all teaching, you know, we can't be up made to, you know, we all have full loads in T1, T2. Fred's adamant and need be has to be followed. I said that means you have to employ someone. He said, in casual? I said, no casual won't be allowed to coordinate. It has to you have to which is the University has to improve the Coordinator somehow. I said the coordination of 344 is replacing Liz. I said this will be an extra, I said, you know, so that's the condition. I didn't put it I'm a bit I've spoken to him twice now, and I'm going to send him an email now and put it in writing. I said I was going to talk to you today, but there is some of the other schools are keen to do this, maybe it's just money minded with us. If someone on this team wants to do this, then this is what everyone knows. They are offering incentives, which apparently have to come out of school's budget it's like [UT]

.
. .

Lori: So, if anyone wants to volunteer for it, just let me know (Doc 3-1, Line 780-809).

One of the focal group members, Betty, sees an opportunity to meet an individual need, to take a full year off to study abroad. Betty assumes the leadership of the group and discusses this option, seeking the group's advice on how she should approach this issue. The members involved in this discussion support Betty's idea, which appears to be a fracture in the group's unified resistance the new LMS. Why the group was supporting Betty was that her offer gave the group an opportunity to relieve the pressure being placed on them by the university and [External Service Provider].

Relieving the pressure on the focal group by enabling a member to meet an individual goal through a unique one-off solution did offer the group a sense of heightened control of the issue while they maintained their fundamental identity. In the end, Lori directs Betty to contact the head of school with her willingness to teach across three consecutive trimesters if they agreed to her terms. Betty maintains her leadership of the group using gapless discussions, over-speaks, and jump-ins throughout this discussion, which did not permit other members to take over the group's leadership role. The numerous gapless discussions further supported Betty's leadership position, showing that the group was enthusiastic about Betty's idea (Doc 3-1, Line 853-883).

Betty: I'm wondering if they would do a deal with me. In 2013, I really wanted to go on another artist in residence thing. If I were to teach that for my trimester would, they give me time to go and do an artist in residence thing?

Lori: [GD] Well T2 was [UT]

Jean: [OS] Is it T2?

Betty: [GD] I don't know, you know I don't know, [UT]

Ann: [OS] pick a date because

Lori: [GD] If it is enough you can the next year take all your load in one trimester?

Betty: [GD] Yeah.

Lori: [GD] You can say, well I'm going to take whatever you'd have to load, and significant load so that you didn't have too much you'd have a trimester without teaching and you'd arrange that what you do with that trimester would have to be made with Fred.

Betty: [GD] Yeah.

Jean: [GD] So effectively, that would mean that of the six trimesters over two years we're all going to be teaching four. you'll just teach four in a row, or that's what you're saying [UT]

Group: [OS] [IS] [UT]

Jean: [AF] [OS] or three and then [UT]

Group: [OS] [IS] [UT]

Jean: [AF] [OS] two breaks and then one.

Betty: [GD] But that's no good to me, you know if I'm not allowed to go and do my artist in residence [UT]

Group: [OS] [IS] [UT]

Betty: [AF] [OS] thing you know.

Ann: [GD] Make that your bottom line.

Betty: [GD] That would be my bottom line.

Jean: [GD] Well you need to know when your residency dates are because you're going to get a trimester off anyway.

- Betty: *I know, but you know, the trimester we're getting off is Trimester 3. I want to do my residency in Italy, and I've got a site and everything all sort of lined up. [UT]*
- Jean: *[JI] So when? In Trimester 2 [UT]*
- Betty: *[AF] [JI] I wanted it not in the height of the Italian summer, I want to do either in the spring or in the fall. [UT]*
- Lori: *[OS] So trimester 1[UT]*
- Jean: *[OS] Which means [UT]*
- Betty: *[AF] [OS] Either over Easter or over October. I have to sit down and look at the dates [UT]*
- Jean: *[OS] The dates yes [UT]*
- Betty: *[AF] [OS] I have to sort of know [UT]*
- Lori: *[JI] So do you want I won't mention this in my email to Fred, I'll just [UT]*
- Ann: *[OS] It has to be someone identified for the transition [UT]*
- Lori: *[AF] [OS] and if you, after I send that, you could then email Fred and say, regarding the and I'll say in it that I've let staff know so they will contact me or you if they are prepared to do it (Doc 3-1, Line 853-883).*

In the end, the [External Service Provider]'s contract with the university was cancelled. The focal group did not have to adapt their curriculum to fit the [External Service Provider]'s LMS. The group demonstrates its excitement at the news by using multiple over-speaks to express their gratitude for no longer having to adapt to the changes brought on by the LMS (Doc 9-1, Line 740-746).

- Ann: *[GD] As you all have heard we are dropping ...[UT]*
- Group: *[OS] [Yes]*
- Ann: *[OS] [AF] [External Service Provider] ... [UT]*
- Group: *[OS] Mmm*
- Jane: *[JI] Thank god for that ... [UT]*
- Ann: *[AF] [OS] With [External Service Provider] gone as the Jane for the University we can more easily connect with external vocational program provider in [First Program] award and access their ...[UT]*
- Jean: *[OS] Yes, [External Service Provider] is dead*
- Ann: *[AF] [OS] units to fit into our courses (Doc 9-1, Line 740-746).*

Extra-Organisational System Shock

The focal group incurred an extra-organisational system shock when an award supported by the group was no longer accredited and thus was due to be withdrawn by the university. The loss of this award would have left the group with an excess in teaching staff to address the issue the school of education sought, to offer a new accredited [New Dual Degree] award. The university approved the development and implementation of the new [New Dual Degree] award. The [New Dual Degree]

award combined [First Program] and [Second Program] awards, providing graduates with equivalent awards in both areas of study. The proposed role of the group was the development and teaching of [First Program] units for the [New Dual Degree] award, which represented an infrequently occurring problem for the group. The group raised concerns about the role of the [First Program] award during the January 2012 focal group meeting (Doc 1-2, Line 18-28).

6. *Discuss general issues around 2013-unit approval process.*

- *The discussion was centred on what will be taught in T3 in 2013 that meet the on-campus requirement of [External Service Provider].*
- *T3 units must include an intake unit*
- *Open discussion was common with frequent [OS] and [JI]*
- *Donna and Ann locked in a discussion units for T3*
- *Ann used a jump-in creates a triad with Jean and Jane enabling her to assume control of the [focal group] from Lori.*
- *Ann presents herself as the led on the need for prerequisites for the new T3 units and Donna is seldom included in the discussion (Doc 1-2, Line 20-27).*

The discussion was looking at the requirement of the focal group to provide [First Program] units for the [New Dual Degree] award by the third trimester of 2013. The new units would affect how the group would offer instruction in [Bachelor of Teaching] and [Bachelor of Education] awards, which had been already having been programmed for 2013. Ann used a jump-in to gain control of the group in an attempt to stop the group from adapting its traditional unit offerings to meet the needs of the [New Dual Degree] award (Doc 1-1, Line 282-300).

Lori: [OS] Okay. Good timing then. So, what happened with the unit forms this year is that we have to nominate units, which are going to be T3 next year. Now, what is happening with the courses [BN] except for the [First Program] units, which are contained within our team, to [Bachelor of Teaching] and [Bachelor of Education], all of the other courses have already been mapped. Because they have to match student's progression across multiple teams, and so it's been decided what unit will be taught in T3, so those teams simply have to allocate staff into teaching T3, but it's put in a way that partly has in trust, because the [Bachelor of Education], [Bachelor of Teaching] has been mapped, and Ann has [UT]

Ann: [JI] But we put very few units in T3 [UT]

Lori: [AF] [JI] what is in T3 [UT]

Jean: [JI] Is it mapping through and in an established or is this just under discussion?

- Jane: No, no, this is what's been set because of the length of [New Dual Degree] award.*
- Jean: [GD] Yes that's fine.*
- Jane: [GD] Anything else that's not in this week and map as we choose.*
- Jean: Okay*
- Ann: But you'll notice that the only three units we've only put three units in the new [New Dual Degree] award we've only put three units being available in Trimester 3. That's 388, 391, and 427 the other [UT]*
- Lori: [JI] Those you see there are not our units; 72 being offered in T3, are Arts and education [UT]*
- Ann: [AF] [OS] So, but for, for all three of those units, the 388, 391 and 427, unless we're deciding for the [Bachelor of Education] or the [Bachelor of Teaching], that we want them available for [UT]*
- Group: [SB] [IS] [OS]*
- Group: (Laughing) [OS]*
- Ann: [AF] [OS] Trimester 3 in 2013, we don't change the forms. These changed forms are only for 2013, and the new [New Dual Degree] award will start with first year units in 2013, second year units in 2014. So, this time next year [UT]*
- Lori: [AF] [OS] Oh okay [UT]*
- Ann: [AF] [OS] the start of next year we will have to change the 388, 391 unless we decide we want them available in our current [Bachelor of Education] or [Bachelor of Teaching] [UT]*
- Group: [SB] [IS] [OS]*
- Group: (Laughing) [OS]*
- Ann: [AF] [OS] and we can't put 17 or 18 or 19 in the three [UT] (Doc 1-1, Line 282-300).*

Ann perceives a further threat to the status of the [First Program] award caused by the students for the [New Dual Degree] award not being qualified to take [First Program] unit instruction. To stop this threat, Ann proposes that they protect [First Program] units by placing a prerequisite that all students wishing to take these units must have at least 24 credit points from both 100 and 200 level [First Program] units.

Ann's plan of resistance did go against university policy at the time since the use of prerequisites was not allowed—a policy that a senior member like Ann would have been aware of, but she chose to ignore it in her effort to resist changes to the focal group's fundamental identity. At this point in the discussion, Ann was firmly in control of the group, with only Lori challenging her leadership position by questioning her logic by playing devil's advocate (Doc 1-1, Line 282-322).

- Lori: [AF] [OS] So in the second year of the new course, which is 2014, someone could choose to take up 300 units if they are accelerating but they won't be allowed to take that after the first year?*
- Ann: Say that again?*
- Lori: In 2013, the year that the course will be starting, so they can still do all of their first-year units?*
- Ann: Yes.*
- Lori: What if they wanted to do [First Ed] in two, three, can they do that after they've done just two first [UT1]*
- Jane: [JI] Do they have to do their two-second year units? [SB] [IS]*
- Ann: No, we put some prerequisites into these units to block people, because there should be these units are laid out in a sequence of, you know, first year, second year, third year, but people can't go in and say, "Well I'll take a 400 level fourth year unit, and I haven't done any 100s or 200s".*
- .*
- .*
- .*
- Lori: So, I'm just going to play devil's advocate. Do we need to do that [UT]*
- Ann: [OS] I think we do.*
- Lori: [AF] [OS] Do we need to stop students doing, you know in 388 do they have to have done 200 level units before they do 388?*
- Jane: No not really.*
- Lori: In terms of student flexibility for students?*
- Group: [OS] [SB] [IS],*
- Group: [mmm], [mmm].*
- Ann: Well we certainly want them to have done all the 400s before they do any of our 300s. (Doc 1-1, Line 282-322).*

During the June 2012 focal group meeting, Ann had raised concerns over the group not receiving financial support to write the new [New Dual Degree] award units. She went further, adding a sense of urgency to the situation by using a jump-in, when she stated that there was a shrinking time frame for the new units to be written, before the start of trimester one, 2013. Ann was trying to escalate the conflict by building a coalition of members around the lack of financial support to join her in resisting the focal group's involvement in the [New Dual Degree] award (Doc 6-1, Line 635-642).

- Jean: Then can we then at least even if it's not the actual modules can we with whatever contract monies and stuff you know. We manage to find some seed money for this, but contract external vocational program provider in [First Program] award lecturers to not just move the module in but to have a knowledge of those modules, say full knowledge of the work where we don't have a knowledge of the work actually to write the units for us? They are not, they [UT]*

Ann: [JI] There is [OS]

Jean: [OS] [AF] are not external vocational program provider in [First Program] award modules [UT]

Ann: [JI] There is no money for writing these units there was not money put up for writing these units [UT]

Group: [OS] No

Ann: [OS] [AF] it was part of our regular workload, and we know that we have a team of seven or eight people who are half time full time whatever we are? It is part of developing the new course we have done all this development of the whole course with no extra money it is part of our workload, and we have two [UT]

Jane: [OS] Is

Ann: [AF] [OS] units for T1 and two for trimester 3 (Doc 6-1, Line 635-642).

Unfortunately, those concerns raised by Ann were proven false when Fred, the head of school, attended the focal group's July 2012 meeting (Doc 7-1, Line 372-376).

Fred: With the [New Dual Degree] award, the status is this that is we had a dual sector meeting this morning with external vocational program provider in [First Program] award and Maureen Chapmen from Strategic Projects Group. There is no money for the [First Program] award – for that program to come in next semester, but there is money to rewrite or revamp units, and we can apply, and this is what Mike and I are going off to do, is to apply for a whole bucket load of money out of the [Jargon] to get up innovative programs and this is what we were going to call it, an innovative program. So, on the one hand, there is no chance of getting an external vocational program provider in [First Program] award to teach and getting a dual sector partnership relationship for that Education, but there is some money there that we will target to go and get the external vocational program provider in [First Program] award, people, to write these units [UT]

Ann: [JI] Where [UT]

Fred: [OS] or [UT]

Ann: [AF] [OS] it's appropriate or for those members of the team who want to write their units, maybe produce some money to help release you, particularly for these first four 100s that have to be done for T1 [UT]

Fred: [AF] [OS] yes ... [UT] (Doc 7-1, Line 372-376).

Throughout this entire section (Doc 7-1, Line 371-581), Fred was not allowed to complete his thoughts due to Ann, Jean, and Jane repeatedly using over-speaks and jump-ins to take control of the focal group away from Fred. The revelation by Fred that funding was available to support the group towards writing the new units and that it would be in place removed a point of resistance being raised by Ann.

However, Ann's concerns regarding not having enough time to write the new units were not made during this focal group meeting or subsequent meetings.

The issue of the [New Dual Degree] award and the focal group's involvement was heightened during the August 2012 meeting. Sue had assumed the leadership of the focal group during the discussion of the [New Dual Degree] award when Ann was quick to interject her concern that the meeting lacked a quorum and that the [New Dual Degree] award issues should be held over until next month. Sue was not put off by this tactic and pressed forward with her leadership of the discussion on new unit development with a quick and concise leadership style (Doc 8-7, Line 10-11).

- *Ann attempted to halt the discussion due to a lack of a quorum. This effort failed (Doc 8-7, Line 10-11).*

Ann's attempt at taking control of the discussion failed, as Sue acknowledged her concern using over-speak and proceeded with her discussion of the [New Dual Degree] award issues (Doc 8-1, Line 11-19).

Sue: [GD] I'm sure we'll be done by then, but at 2.45 we have a Skype session with a [UT]
Jenny: [OS] Oh do you
Sue: [OS] [AF] student.
Ann: We have so few people here I would think a lot of these items will [UT]
Joan: [OS] cut you all short.
Ann: [OS] [AF] Well some of them we'll just defer them till September, that's about all we [UT]
Sue: [OS] Yeah.
Ann: [OS] [AF] Can do
Sue: I'll talk about mine anyway, and then I'll have to summarise it an email or something because our report is due in September [UT] (Doc 8-1, Line 11-19).

Sue proceeded with leading the focal group in a discussion on the [New Dual Degree] award and the application of [placement]. Ann next raised the issue that Sue's proposed changes to [placement] to meet the needs of the [New Dual Degree] award could not occur. She states that the group were the only [First Program] award experts and therefore the only ones that can adapt [First Program] units. Sue appears to give Ann control of the group, but she continues with her train of thought, maintaining her control of the group, and forming a dyad with Lori to resist Ann's efforts to gain leadership of the focal group (Doc 8-1, Line 169-204).

- Sue: *Even that raises another question that Tony asked me to ask or to ask the [First Program] award team about, is that was it ever decided exactly because we'd done our own [placement] up until now, is the [placement] office going to be doing [UT]*
- Ann: *[OS] We've only [UT]*
- Sue: *[OS] [AF] To be doing ours*
- Ann: *[OS] [AF] We've only done [placement] where it's been one and two days [UT]*
- Sue: *[OS] Yes [UT]*
- Ann: *[OS] [AF] Where it's been a block [placement], it's been organised and paid for, or it goes through the [placement] office for official [placement] and leadership still does that because it's five days.*
- Sue: *[GD] Yeah.*
- Ann: *And all of these ten-day blocks will be part of the [placement] office [UT]*
- .
- .
- .
- Ann: *[GD] We are the [First Program] award experts, and we are to define what we want the students to do during their ten-day [placement]s in the various units.*
- Sue: *[GD] Okay*
- Ann: *[GD] Such as sequencing from there's several things to more complex skills and abilities and understanding*
- Lori: *And it would be really nice if we could design our books; whether they have to be physical books and online books or whatever we have [UT]*
- Ann: *[OS] they will be online*
- Lori: *[OS] [AF] to be well yeah [UT]*
- Group: *[OS] [IS] well want we need [UT]*
- Lori: *[OS] [AF] and when I was working in the [placement] Office years ago, I redesigned the books because the teachers just didn't use them the way they were done, but suggestions weren't taken because it's got to be done [UT]*
- Ann: *[OS] there still [UT]*
- Lori: *[OS] [AF] You know, they had their idea but how the information it had to be done. When Jillian Boyle was here, she wanted to do it; she could see the teachers couldn't – if they weren't usable for the teachers they couldn't get anywhere, so I'm not sure where we got to yet on because I am on the periphery and sort of tried to redo them last time. They're not teacher friendly; they're not – they have to be teacher friendly because it's the teacher whom we ask to [UT]*
- Ann: *[OS] they have to be student friendly too [UT] (Doc 8-1, Line 169-204).*

Throughout this segment, Sue and Ann used over-speaks in a battle to assume the leadership of the focal group, and when the Sue, Lori dyad formed, Lori used over-speaks against Ann to rebuff her attempt to take control of the group. Ann's failure

to gain control could have been due to Jean not being at this meeting to provide Ann with her typical support.

Ann was not to be defeated quickly and escalated her resistance to the [New Dual Degree] award when the discussion on who would teach the new [First Program] units was raised. It was suggested by Ann that the focal group's workload would be too high teaching into the [First Program] award and the [New Dual Degree] award, suggesting the group work to limit their availability to teach the [New Dual Degree] award. Ann's attempt to gain control over the group using over-speak and the threat of job action was not successful, as Lori also applied an over-speak and maintained control of the focal group's leadership (Doc 8-1, Line 268-276).

Donna: [GD] But you know, I understand that it's going to be more workload and obviously more teaching which we've never had before. There's all those sorts of issues and workload issues and staffing issues and whether or not you know these [UT]

Ann: [OS] There will be challenges [UT]

Lori: [OS] [IS] already (Laughing) (Self) [UT]

Ann: [AF] [OS] there are challenges for everybody. But we have a defined workload and us just if we need to we have to work to rule, and that's [UT]

Lori: [OS] We've put [UT]

Ann: [AF] [OS] Standing up [UT]

Lori: [AF] [OS] in an ad – we're putting an ad out through [First Program] award New South Wales to say we want CVs from people who can do casual teaching and marking. We think we'll need casual teachers; we won't have the staff to do all the things – I mean it will build every year. Next year we'll only have four units I think there will be more and more – the numbers, you know it's going to grow. [UT]

Ann: [OS] and then our three hundred

Lori: [AF] [OS] movement we think in the school that it will be every team – well almost every team has access, you know so what's going to happen they're going to lose some of their access as the numbers – they won't all be new, you know there'll be some new numbers, but some numbers will move in the current [Bachelor of Education], [Bachelor of Teaching], so there will be [UT] (Doc 8-1, Line 268-276).

Ann continued to express her feelings against the [New Dual Degree] award using a sharp tone to her voice that grew with intensity as the discussion on the [New Dual Degree] award progressed (Doc 8-7, Line 15).

- *Ann expresses her ongoing concern regarding the [New Dual Degree] award with the sharp tone of her responses (Doc 8-7, Line 15).*

Ann's resistance to the [New Dual Degree] award intensified during the September 2012 monthly focal group meeting, where she raises a misperception that the group could not write the [First Program] units for the [New Dual Degree] award until the school provided funding support. Funding to write the new units had been applied for, but the outcome of that application was unknown at that time. Lori maintained the leadership of the group, encountering a dyad composed of Ann and Jean, supporting Ann's attempt to assume leadership control. In the end, Lori maintained control of the group and continued to lead the discussion through a series of over-speaks that were traded by Lori and the Ann and Jean dyad (Doc 9-1, Line 128-142).

Lori: So I inserted that change into the minutes and sent you all the amended minutes, and there has been no word on the ... [UT]

Group: [OS] [SB] [IS]

Lori: [OS] [AF] outcome of the funding request. The funding request was submitted through the business plan proposal you know for trimesterisation 2013, in particular, one major objective entailed funding four of the seven [New Dual Degree] award unit ... [UT]

Group: [OS] [SB] [IS]

Ann: Was it approved or just

Lori: [Bachelor of Education] [First Program]

Ann: Just sent in

Lori: [Second Program] award units

Ann: [OS] what was the delay ... [UT]

Jean: [OS] Is that [UT]

Ann: [OS] [AF] that request ... [UT]

Jean: [OS] [AF] all right or ... [UT]

Ann: [OS] [AF] went in months ago, ... [UT]

Group: [OS] (Laughing)

Lori: The delay was the priorities to get workloads settle first with our team leaders meeting with Fred you know [UT] (Doc 9-1, Line 128-142).

Ann saw the lack of funding as a major block towards the focal group offering [First Program] units to the [New Dual Degree] award. However, Lori regarded the added workload of supporting the [New Dual Degree] award, even with a funding uncertainty, as business as usual when you work at a university. She encouraged the group not to allow these issues to stop them from writing the [New Dual Degree] award units. Lori maintained her leadership control over the focal group using

gapless discussions and over-speaks, steering them past the funding issue while getting the focal group to focus on writing and teaching into the [New Dual Degree] award (Doc 9-1, Line 153-158).

Ann: Okay, but that leaves us without a secured source of funding to meet the needs of writing all those new units?

Lori: I guess we will have to rely on what Mike and Fred have told us and move forward on writing the new units. The [New Dual Degree] award is going to happen and ... [UT]

Jean: [JI] Yeah great but ... [UT]

Lori: [OS][AF] we all know that.

Group: [OS] [SB] [IS]

Lori: [JI] Anymore discussion on this topic? I just wanted the team to know about the addition to last month's minutes. Good (Doc 9-1, Line 153-158).

Ann's failure to gain control of the focal group's leadership was in part due to the lack of support she received from other members. In view of this failure, Ann attempted to gain group leadership by threatening to retire in the hopes the focal group would support her view of the [New Dual Degree] award when faced with losing her to retirement. Unfortunately, the focal group did not offer her support; they just laughed; even Jean, her closest ally, did not offer her support in Ann's efforts to gain leadership control of the group (Doc 9-1, Line 683-687).

Lori: Fred discussed those you wrote a unit or units would have funding placed into their educational fund.

Jane: Well I am always for that.

Ann: You know perhaps it is time I considered retirement from all this

Jane: [GD] You and me both [laughing]

Jean: Yeah right (Doc 9-1, Line 683-687).

Ann had not given up in her attempt to gain control of the focal group when she mentioned the need for the group to develop [First Program] units for 2013 and 2014 that were separate from those required for the [New Dual Degree] award. She was attempting to present the focal group with an issue that should supersede their involvement with the [New Dual Degree] award. Lori saw the need for the focal group to address [First Program] unit development is not an immediate concern and, through a series of gapless discussions and an over-speak, she maintained control of the discussion (Doc 9-1, Line 688-692).

- Lori: [GD] Shall we move on*
- Sue: [GD] So I have a list of the units that needs to be written and eventually taught.*
- Lori: [GD] Thanks, Sue okay I will send around ... [UT]*
- Group: [OS] [SB] [IS]*
- Lori: [OS] [AF] a list of those units that need to be written and need to be taught for your consideration.*
- Ann: [GD] We must not forget that there is the need for unit development in 2013 and 2014 that we have to do*
- Lori: [GD] That will be looked at when the time is right (Doc 9-1, Line 688-692).*

With Ann's latest attempt to gain control of the focal group's leadership failing, she raised the issue that the [First Program] units that were a part of the [New Dual Degree] award were going to be taught by none- [First Program] award staff. She pushed the issue further through a series of over-speaks by saying that none- [First Program] award academics teaching [First Program] units would cause accreditation problems for the [New Dual Degree] award. Sue was quick to denounce these concerns through a series of over-speaks to take control of the focal group's leadership and report that she was confident the [New Dual Degree] award would meet accreditation standards based on current accreditation policy of the required accreditation organisations (Doc 9-1, 693-701).

- Ann: Also, the team should know that the new courses are being taught by [New Dual Degree] award people and not [First Program] award.*
- Lori: It is a combined course and [UT]*
- Sue: [GD] Being combined course ... [UT]*
- Lori: [OS] [AF] who is available to teach will teach ... [UT]*
- Sue: [OS] [AF] that was known from ... [UT]*
- Jane: [OS] They will not ... [UT]*
- Sue: [OS] [AF] from the beginning [UT]*
- Ann: [OS] Does the new course meet BDFRB accreditation standards?*
- Sue: [GD] Plus a letter has been sent to BDFRB to confirm accreditation, but the program does meet BDFRB standards as we know them ...[UT] (Doc 9-1, 693-701).*

Jean attempted to come to the aid of Ann's failing attempt to assume leadership of the focal group by raising the concern over budget support for writing and teaching new units into the [New Dual Degree] award. Jean and Ann used a series of over-speaks to dominate the discussion and assume joint leadership of the group but

quickly lost that control to Sue, who used a jump-in to regain leadership control of the focal group (Doc 9-1, 702-708).

Jean: [OS] how is this ... [UT]
Ann: [OS] I am saying ... [UT]
Jean: [OS] [AF] being budgeted do ... [UT]
Ann: [OS][AF] if we do this and it comes out wrong or worse we do not get paid for our work than what is the point?
Sue: [AF] If you will just let me finish Ann ... [UT]
Ann: Please go ahead
Sue: [AF] [JI] I have confidence the new course will receive BDFRB accreditation and what is outstanding is writing the new units and teaching those units (Doc 9-1, 702-708).

During the contentious September 2012, monthly focal group meeting, Lori maintained her leadership role by applying a series of gapless discussions to keep the discussion moving forward. Lori once again asked for group members who wished to write and teach into the [New Dual Degree] award to come forward. She received support in her continued focal group leadership efforts from Betty as she used a jump-in to offer Lori support (Doc 9-1, Line 709-716).

Lori: [GD] so I will send to the list for consideration, and by next meeting, we will have the entire unit writing, and teaching needs met.
Ann: [GD] Well I for one am very busy and may not have time t ... [UT]
Sue: [JI] I am sure we ... [UT]
Ann: [AF] [OS] write up new units ... [UT]
Sue: [AF] [OS] can find people eager to help the new course ... [UT]
Betty: Sounds ... [UT]
Ann: [JI] I am only ... [UT]
Betty: [OS] [AF] good to me (Doc 9-1, Line 709-716).

Throughout the September 2012 focal group meeting, Ann took a very negative position towards the group's involvement in the [New Dual Degree] award. The dominance of Ann emphasised the level of resistance she offered, where she and Sue seemed to be in an endless battle for control of the focal group's leadership (Doc 9-2, Line 56).

6. Ann was negative to the very end of the discussion highlighting that she is decreasing her work time to 3 days per week and would decrease her possibility for teaching (Doc 9-2, Line 56).

Sue was the [New Dual Degree] award coordinator for the [New Dual Degree] award, and Ann saw the adaptations that [First Program] award would have to make

to accommodate the [New Dual Degree] award as unacceptable due to the change in the focal group's fundamental identity that would result. Lori in the end not only maintained her control of the focal group's leadership; she acted as an umpire between Sue and Ann. When this meeting ended, Lori's efforts in managing a difficult situation were recognised by Sue, with Lori recounting how she was able to put forward that effort (Doc 9-1, Line 771-775).

Lori: That was hard today

Sue: Well done Lori you handled that meeting very well, very professional.

Lori: Well I knew it was going to be a tough road, so I just prepared myself for it, you know but thanks anyway.

Sue: I loved the way you maintained control and did not let the discussion get out of control, there were a few times I thought "oh boy" here we go. The whole bit about retiring and not wanting to be a part of this [New Dual Degree] award was shocking I thought. I mean talk about pulling out all the stops, geez. Anyway, good job Lori.

Lori: Well it is done, and I hope I do not have more of the same because this was exhausting you know (Doc 9-1, Line 771-775).

During the September 2012 meeting, the cohesion of the focal group was splintered, with Betty, Barb, Jane, and Jenny seldom, if not at all being involved in the group interplay. The issues that faced the focal group did involve all the members and did require them to assume some level of responsibility and accountability towards its involvement with the [New Dual Degree] award. However, the loss of group cohesion that was first seen during the January 2012 meeting had escalated during the September 2012 meeting, resulting in a severe loss of group function.

The resistance that Ann displayed towards the [New Dual Degree] award reached its peak during the October 2012 focal group meeting. Ann perceived the [New Dual Degree] award as a threat to the student population that was traditionally attracted to the [First Program] award. She described how the [New Dual Degree] award graduates would be less educated in the [First Program] discipline than those who graduated from the [First Program] award, while graduates from the [New Dual Degree] award would be qualified to teach not only the [First Program] award but also in the [Second Program] award.

Despite there being nine members at this meeting, it predominately involved Ann, Sue, and Lori in the group discussions, with Ann presenting resistance to the [First Program] award being included in the [New Dual Degree] award—a position supported by Sue and Lori during this meeting. It should be noted that this discussion had very few instances of over-speak, jump-in, or gapless goal-oriented dynamics used due to the high emotions that were being demonstrated on both sides of this issue (Doc 10-1, Line 373-377).

Lori: [JI] You would already expect the employer if someone had our three or four-year [First Program] award they had more [First Program] award than someone who has got four years of [New Dual Degree] award. That's what I would expect [New Dual Degree] award is not going to have the same training and experience as someone with a full four years of just [First Program] award. Which is what you are saying, they don't they won't have the same training.

Sue: I would just say; it just does not matter how I feel about it. It matters the accrediting boards say about it and what are the other universities that currently have the degree what are they doing about it, making it based on not on what I believe philosophically which is probably close in line with what you think.

Ann: [GD] But I'm I am going beyond the philosophy though I'm going in terms of the real world and to me the real world it doesn't make any sense. I mean we had to give up having the [birth-5] and [birth-8] pathway with the [Bachelor of Teaching], [Bachelor of Education] because there were no discipline units for the primary half of the course. Do we have something in writing from both bodies?

Sue: Yeah yeah and that is why I asked you that I really wanted what we are saying in writing, and I want them to give back in writing, so we have a paper trail to prove that we have proper accreditation. That was my main one of the main concessions they have that the proper accreditations in the end. I said I do not want any big surprises with this

Ann: So why so why if that is the case it sounds to me like we should just close down the [First Program] award (Doc 10-1, Line 373-377)

Sue and Lori formed a dyad and presented the argument that [First Program] award graduates would not lose employment opportunities to the [New Dual Degree] award graduates. Lastly, Sue and Lori discounted Ann's concern over a decrease in future enrolment for the [First Program] award by discussing the differences between the two awards. Most of the members remained silent during this meeting despite seven members being present, with three absent. Decreased member interactions during this meeting were similar to what occurred during last month's

meeting with Ann, Sue, and Lori dominating focal group interaction. With the group interaction centred around the issue of the [New Dual Degree] award, Jenny, Joan, and Barb kept to themselves, not wanting to be a part of the ongoing new-award issue. The presence of elevated emotions would explain why those members did not enter the discussion.

During this meeting, the focal group was no longer focused on goal attainment but continued to be splintered by Ann's need to keep [First Program] award's fundamental identity intact. Decreased involvement by the entire group would lead to fewer solutions being proposed to future issues that faced the group, causing an ongoing decline in group performance. The effect of the group splintering would be a centralisation of its interplay around the dominant members that would seek to meet their individual needs over group goal attainment. Sue, Ann, and Lori used a jump-in as Sue battled over control of the focal group's leadership with Ann. A dyad formed consisting of Sue and Lori that successfully allowed Sue to maintain the informal leadership of the group. Ann's failed attempt to assume the leadership of the group not only occurred when she encountered the Sue and Lori dyad but also because of the lack of focal group support she received (Doc 10-1, Line 362-388).

Sue: That is what was agreed upon by MJTSJU, and BDFURB felt that it should be, especially BDFURB felt that it should be equivalent to a means of their teaching in a way, but they are not they are coming in first. All the other universities that offer this unit give a full two years we are offering a little less.

Ann: [GD] But not in, not in a course [UT]

Sue: [JI] for a full year.

Ann: [JI] But not in a course that is half [First Program] award and half [New Dual Degree] award all the way to (0-12) years.

Sue: Yes, that is what they are, Curtin uses courses that we have that is what they offer they offer one year. We are not offering a year we are offering seven units.

Ann: [GD] But then they come in the only unit that is left are five from the [Bachelor of Teaching] and four from the [Bachelor of Education] so they are not even doing the equivalent [UT]

Sue: [OS] Yes

Ann: [OS][AF] of what is our [Bachelor of Teaching] and [Bachelor of Education].

Sue: [GD] But the view is and from both the accrediting boards is that the Dip. that they did and their experience is equivalent to those seven units.

Ann: So, they go to that course, and they have to do less than the Dip. people having to do in [Bachelor of Teaching] other units?

Sue: No only in terms in the area [UT]

Lori: [JI] you would already expect the employer if someone had four a three or four-year [First Program] award they had more [First Program] award than someone who has got fours of [First Program] award and [New Dual Degree] award. That's what I would expect the [New Dual Degree] award is not going to have the same training and experience as someone with a full four years of just [First Program] award. Which is what you are saying, they don't they won't have the same training.

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Lori: [OS][AF] want [Bachelor of Teaching] and [Bachelor of Education] they are going to be they are people who want to focus on [First Program] award, and they are going to be really well trained as [First Program] award teachers.

Sue: [GD] and there are still a lot of people only for example my daughter is completely not interested in [New Dual Degree] award all she cares about is [First Program] award and there actually a lot of people who that is what they really care about. I actually don't think that there will be that big of a difference and people are smart too are going to go with just the pure [First Program] award route means they will get a job (Doc 10-1, Line 362-388).

The interaction over the focal group's involvement in the [New Dual Degree] award was heated, with emotions running high on both sides of the argument. Ann continued to resist the group's involvement by demanding a copy of the letter from the [New Dual Degree] award's accreditation agency that the university received to prove that they had meet accreditation standards (Doc 10-2, Line 23- 24).

- *Ann continues to raise resistance to the [New Dual Degree] award even to the point of asking for a letter to confirm the program status.*
- *Even though Ann has no official standing to ask for such a letter. Just has implied power and not explicit power (Doc 10-2, Line 23- 24).*

The absence of a copy of the letter raised Ann's concern level over the legitimacy of the [New Dual Degree] award's accreditation status. Ann used a jump-in to assume leadership of the focal group over the issue of the missing letter.

Lori: [OS][AF] oh sorry no this is not Sue, this is – yeah, the teacher qualification. I guess Betty isn't here. my understanding because I was away last week from those emails that Betty got, was that our course is accredited.

- Sue: [GD] Yes.
- Lori: and that our students are being rewarded teacher status, and anyone we've taken in up until [BN squeal], well that exists I guess until we change it [BN squeal] seems to be accredited. Okay, that's all I wanted to check that everyone knew that. So, if you have any queries from students now that the course is moving [UT]
- Ann: [JI] and if another letter went out, it would be great if all of us had copies of the letter. Joan, do you know, or can you [UT]
- Sue: [JI] Yeah it would be because I've had two inquiries this week but I'm basing it on my conversation with Betty, but I haven't actually seen it.
- Joan: I sent out the one that [UT]
- Ann: This is the new --- there should be a new one [UT]
- Joan: [JI] I don't know whether I've got a copy, I haven't got a copy of this.
- Ann: [GD] it says, all red flags we waved (Doc 10-1, Line 172- 180).

However, Sue was successful in regaining her control of the focal group's leadership by diffusing Ann's issue, outlining that Mike and Betty were handling the accreditation issue. Ann's loss of her point of attack took away her challenge for the leadership of the focal group. Sue and Lori maintained their unified dyad resistance against Ann, with Lori using over-speak to counter Ann's efforts (Doc 10-1, Line 181-187).

- Joan: I haven't got a copy of it.
- Sue: And Mike's working on it right now.
- Joan: Sorry
- Sue: Mike was working on that.
- Joan: Well I think I got to [UT]
- Ann: [OS] Maybe Zoe was [UT]
- Joan: [OS][AF] get a copy of it.
- Ann: [OS][AF] involved in getting it organised too has moved on.
- Lori: So, we think it's gone out, do we? [UT]
- Ann: [OS] Doing what?
- Lori: [OS][AF] we think it's been allowed to go out?
- Ann: Because this was such a big turnaround in the positive for our students [UT]
- Lori: [OS] somebody needs to work it out [UT]
- Ann: [OS] [AF] it should have gone out last week.
- Sue: Mike and Betty were working on it, [UT]
- Lori: [OS] Oh okay
- Sue: [OS][AF] and I believe it's already probably gone out, but I know that Mike's not here this week I think (Doc 10-1, Line 181-187).

The unified dyad of Sue and Lori easily helped Sue maintain her leadership position over Ann and demonstrated that Ann does not have extended focal group support beyond Jean (Doc 10-2, Line 25-29).

- *A discussion dyad forms with Jean, Ann against Lori*
- *Fails to materialise when none of the members of the Ann group*
- *Jean is not present to support Ann.*
- *This limits the power the Ann has over the discussion outcome, and she loses the argument that she very strongly put forward.*
- *An argument that was based on implied power (Doc 10-2, Line 25-30)*

Ann attempted to gain control of the focal group's leadership by attacking the group's involvement in the [New Dual Degree] award, which would cause a change in their fundamental identity, placing the [First Program] award accreditation in jeopardy. Ann's concern was further based on how advanced standing would be awarded to the [First Program] units that were a part of the [New Dual Degree] award. Her fear was the standard used to confer advanced standing would be too low and once again place the accreditation of the [First Program] award in jeopardy. Sue maintained her leadership of the focal group on the strength of her argument by stating that the [New Dual Degree] award's method of awarding advanced standing did follow known [First Program] award accreditation standards and rebuffed Ann's use of a jump-in as she attempted to gain leadership control of the focal group. (Doc 10-1, Line 352-362).

Sue: [OS][AF] um and many of them are in the [New Dual Degree] award and have a have a [First Program] award certificate.

Lori: Oh [UT]

Sue: [OS][IS][UT]

Ann: [JI] But they won't get, but they won't get any advanced standing on the Dip. part of the course?

Sue: Yes, they will.

Ann: They shouldn't because we want to ensure that they have two years of [First Program] award teacher education and two years for [New Dual Degree] award teachers and a Diploma is not a teacher education course so they have all the background they shouldn't get advanced standing that would be my stance.

Sue: They get they get advanced standing based on information based on conversations with [IS] with having conversations Mike actually and other conversations with them.

Ann: In terms of the Diploma?

- Sue: In terms of in terms of if they have the Diploma and they the experience then they can have those there are seven [First Program] units will be equivalent which is also equivalent to what they are doing in other universities*
- Ann: Who because, because they're only having the third year of [Bachelor of Education] then. That scares me to death if that's the case.*
- Sue: That is what was agreed upon by MJTXJU, and BDFURB felt that it should be, especially BDFURB felt that it should be equivalent to a means of their teaching in a way, but they are not they are coming in fit. All the other universities that offer this unit give a full two years we are offering a little less (Doc 10-1, Line 352-362).*

Failing to gain control of the focal group with her past strategies, Ann raised a concern that the [New Dual Degree] award graduates would take [First Program] graduate jobs. Once again, Ann was confronted by the dyad of Lori and Sue, and her attempt to assume the leadership of the group failed. The lack of support that Ann received from the group reflected a decreasing level of professional status that she was being conveyed by the group. Ann's status may not have been in question if Jean were at this meeting (Doc 10-2, Line 32).

- *No one responds in support of Ann and the discussion ends (Doc 10-2, Line 32).*

Ann realised her inability to assume control of the focal group, and she changed tactic to imply that if her view was not accepted, then the [First Program] award and the group would just cease to exist altogether, losing its professional status to the [New Dual Degree] award (Doc 10-1, Line 371-377).

- Ann: So, they go to that course, and they have to do less than the Diploma people having to do in BTeach other units?*
- Sue: No only in terms in the area [UT]*
- Lori: [JI] you would already expect the employer if someone had four a three or four-year [First Program] award they had more [First Program] award than someone who has got fours of [New Dual Degree] award. That's what I would expect the [New Dual Degree] award is not going to have the same training and experience as someone with a full four years of just [First Program] award. Which is what you are saying, they don't they won't have the same training.*
- Sue: I would just say, it just does not matter I feel about it it matters the accrediting boards say about it and what are the other universities that currently have the degree what are they doing about it making it based on not on what I believe philosophically which is probably close in line with what you think.*

Ann: [GD] But I'm I am going beyond the philosophy though I'm going in terms of the real world and to me the real world it doesn't make any sense. I mean we had to give up having the (0-8) years pathways with the [Bachelor of Education] because there were no discipline units for the primary half of the course. Do we have something in writing from both bodies?

Sue: Yeah yeah and that is why I asked you that I really wanted what we are saying in writing and I want them to give back in writing, so we have a paper trail to prove that we have proper accreditation. That was my main one of the main concessions they have that the proper accreditations in the end. I said I do not want any big surprises with this.

Ann: [GD] so why, so why if that is the case it sounds to me like we should just close down the [First Program] award (Doc 10-1, Line 371-377).

The statement by Ann that the [First Program] award should cease to exist was a sign of the level of frustration she was experiencing by not being able to control the focal group to ensure that her individual needs were being met: the maintenance of the group's fundamental identity.

By January 2013 the [New Dual Degree] award was finishing development in preparation for accepting students in the first trimester of 2013. Jane, Jean, and Ann formed a triad, where they attempted to take the leadership of the focal group away from Betty and influence the development of the [New Dual Degree] award. Ann led the triad by raising once again the issue of accreditation of the [New Dual Degree] award, using a series of over-speaks to gain leadership control of the group. Despite Ann raising this issue, the meeting chair, Betty, was quick to refute Ann's concerns by placing trust in Sue's role as the coordinator of the [New Dual Degree] award and that the award met accreditation standards. Ann did not appear to readily accept this answer, leaving her to continue her resistance to the [New Dual Degree] award. Betty maintained leadership control of the group using a jump-in and guided the focal group towards resolution of the accreditation issue (Doc 12-1, Line 289-304).

Ann: In the past, we always held a close relationship with our program and BUG and BDFURB. We have as a rule followed and [UT]

Group: [OS] [SB] [IS]

Ann: [OS] [AF] met all the accreditation standards [UT]

Jean: [OS] Okay but [UT]

Ann: [OS] [AF] set out by BDFURB and in our last meeting on this topic, I [UT]

Jane: [OS] Do the changes [UT]

Ann: [OS] [AF] believe that both the new courses have met the [UT]

Jane: [OS] [AF] affect enrolment [UT]

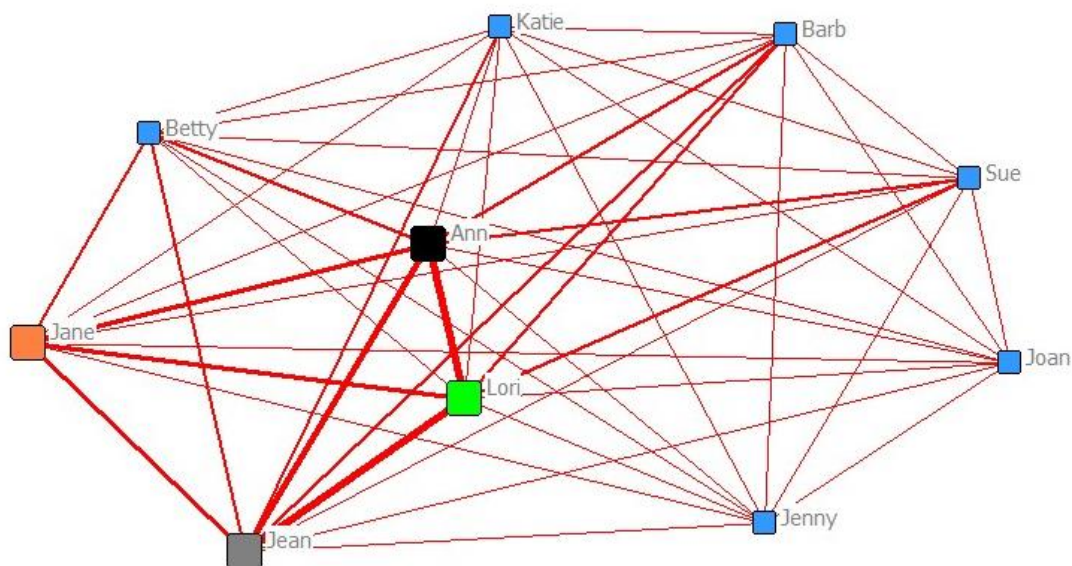
- Ann: [OS] [AF] accreditation's standards?*
- Jean: [GD] So what changes are we talking about?*
- Jane: [GD] Because I already have [UT]*
- Betty: [JI] Yes, you are right Ann the new courses are in line with the BDFURB accreditation standards.*
- Ann: [GD] But, the [Bachelor of Teaching] and [Bachelor of Education] programs were not completely reviewed for BUG and BDFURB. These are critical for our [UT]*
- Betty: [OS] My understanding is [UT]*
- Ann: [OS] [AF] programs to move forward. [UT]*
- Betty: [OS] [AF] that they both course have met the standards (Doc 12-1, Line 289-304).*

At the time, I completed this study, Ann's resistance to the [New Dual Degree] award was ongoing.

4.7. Inter-Member Relations: A Social Network Analysis

The network analysis summarises the number of interactions I observed (total of 17698) between pairs of focal group members over 12 monthly group meetings. The network figure represents a symmetric frequency data matrix. The nodes represent focal group members. Larger nodes and thicker connections indicate members that demonstrated a higher level of interplay (see Figure 4.10).

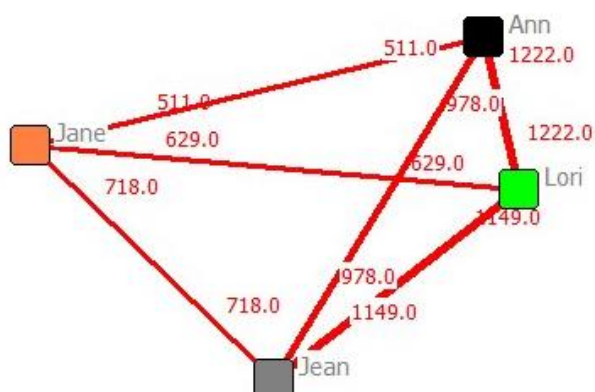
Figure 4.10. Group Interplay Pattern



The majority of interplay occurred between four members Ann, Lori Jane and Jean over the 12-month period (see Figure 4.11). The interactions between the four

members symbolised with red connecting lines and a coloured node represent each member. Each connecting line has a corresponding number that indicates the number of interactions that occurred between two members over the 12-month observation period. Figure 4.11 reveals the number of interactions between the most prominent interactors Ann, Lori, Jean, and Jane.

Figure 4.11. Level of Interplay



Lori had the majority of the interplay, 3000 interactions within this subgroup due to her role as the formal leader of the focal group. Jean had 978 instances of interplay with Ann reflecting her support of Ann's informal leadership roles facilitator, benign and forceful hijacker. The number of interactions between Jean and Jane, 718 and between Jane and Ann, 511 reflects the number of instances where Jane found value towards meeting an individual need(s) by entering a focal group discussion.

The interplay across the focal group over the 12 months of observation revealed patterns of interaction (see Table 4.3). Each column displays the percentage of interactions that occurred between a member and their fellow members. Within each column are three colour coded entries that denote the highest (green), second highest (red) and third highest (yellow) percentage number of interactions. Below the main table is a record of the number and percentage of interactions a member had with the focal group.

Lori, the formal group leader, had the most member interplay, with Ann, 30.94% revealing Ann's attempt to meet an individual need of maintaining the group's fundamental identity, by assuming informal leadership roles.

Table 4.3. Social Network Analysis

Percentages of Interactions (Column Percentages)	Sue	Joan	Lori	Jenny	Betty	Barb	Jane	Ann	Jean	Katie
Sue	0.00	9.04	6.58	8.43	0.36	1.24	1.24	6.54	3.29	2.83
Joan	4.16	0.00	3.06	7.71	0.36	1.62	1.28	1.83	0.77	2.83
Lori	34.90	35.28	0.00	27.71	11.53	26.37	26.03	33.89	30.69	19.96
Jenny	4.70	9.33	2.91	0.00	2.43	2.36	1.41	2.50	1.52	1.06
Betty	0.54	1.17	3.24	6.51	0.00	7.46	8.40	8.15	9.43	6.54
Barb	1.34	3.79	5.37	4.58	5.41	0.00	5.05	4.52	4.65	5.48
Jane	4.03	9.04	15.93	8.19	18.29	15.17	0.00	14.17	19.18	24.38
Ann	31.68	19.24	30.94	21.69	26.49	20.27	21.15	0.00	26.12	8.13
Jean	16.51	8.45	29.10	13.73	31.80	21.64	29.72	27.12	0.00	28.80
Katie	2.15	4.66	2.86	1.45	3.33	3.86	5.71	1.28	4.35	0.00

	Wendy	Joan	Lori	Jenny	Betty	Barb	Jane	Ann	Jean	Katie	Total
Count (Total Interactions)	745.00	343.00	3949.00	415.00	1110.00	804.00	2416.00	3606.00	3744.00	566.00	17698.00
Percentage (Total Interactions)	4.21%	1.94%	22.31%	2.34%	6.27%	4.54%	13.65%	20.39%	21.15%	3.20%	100.00%

highest % for each member
2nd highest % for each member
3rd highest % for each member

Ann would attempt to assume leadership from Lori when the discussion of the support the [First Program] award was to provide the [New Dual Degree] award occurred. Lori's second highest level of interplay was with Jean, 29.10% indicating the support that Jean sought to provide Ann with her attempts at assuming the informal leadership of the group.

The high level of interaction between Lori and Jean also reflects Jean's desire to meet her meeting her terminal values of attaining inner harmony, gaining social recognition, and the attainment of friendships through Lori. The level of support that was based on their long-standing personal and professional relationship. Jane was responsible for the third highest level of interplay with Lori, 15.93% and was selective, with instances occurring when issues raised affected her directly.

The percentage of interplay across the focal group reveals a pattern beyond the expected high level of interaction between the formal leader (Lori) and the majority of the membership except for Betty. She was a tenured member that had lost the sense of utility for the focal group and saw the need for a change in membership composition (Doc 6, Line 327-331).

Betty: I think the meeting's got too many old people, guards, in there you know, they ought to try and get it down, like me and Jenny and Ann and Jean, you know, we're just marking time which is not good when the majority of the group's like that.

Keith: Mm hmm.

Betty: It doesn't give it any vitality, it doesn't give in any forward impetus or anything you know, it needs a whole bunch of new young keen people in there. It's just a shame when we lost Liz because she was really good.

Keith: Yeah—

Betty: It's also if you can get some new young staff in (Doc 6, Line 327-331).

Betty's detachment from the focal group despite her senior member status (recall Table 4.1) affected her level of interactions to those instances that directly involved her, as represented by her interplay primarily with Jean (31.80%), Ann (26.49%) and Jane (18.29%).

Sue was an ex-member and frequent visitor to focal group meetings, despite becoming an ex-member during the start of this research did display a moderate

level of group interplay at 4.21% of the total interplay. The members that Sue interacted with were Lori (34.90%), Ann (31.68%) and Jean at (16.51%), her interplay with Lori was primarily to support Lori's efforts as the formal leader. Sue's interactions with Ann and Jean were centred around a change to the focal group's identity she was trying to install. The change effort was to get the focal group to support the [New Dual Degree] award through the provision of teaching resources which Ann strongly resisted.

The percentage of interaction between Ann, the group, was high mainly with Lori (33.89%), Jean (27.12%) and Jane (14.17%). She also had the high percentage of interplay with Joan (19.25%), Jenny (21.69%), Betty (26.49%) and Barb (20.27%). These levels of interplay indicate the efforts by Ann to assume informal leadership roles during focal group discussions to enable her to meet an individual need of maintaining the focal group's identity and functional integrity.

Barb was the junior member of the group and offered an interplay of 4.54% of the total displaying an active involvement in group interaction (recall Table 4.3). In consideration of her junior status Barb had an active role in group discussions showing a willingness to add to these discussions and have her voice heard. Despite Katie's seven-year membership, her level of interplay was low, at 3.20%, which represented her growing detachment from the group, caused by her plan to leave the university by the end of 2012. Jenny and Joan both had low levels of interplay: 2.34% and 1.94%, respectively. Jenny suffered from a medical condition that made her ability to respond to ongoing focal group interplay quickly very difficult, if not impossible. Joan was the group's administrative assistant, who interacted infrequently and only when asked. Joan's low level of interplay also reflected her level of formal education and feeling of insecurity to interact with the group discussion (recall Table 4.1).

The high level of interplay between Ann, Jean, Lori, and Jane limited the opportunities for the other members to be a part of discussions. Restricting the discussion input by Betty, Katie, Barb, Sue, Joan, and Jenny led to decisions being made without examination of all aspects and solutions to an issue. I would argue

that the lack of an all-inclusive focal group discussion on issues led to decisions that are based on a limited review of all the solutions, which affected the level of group performance. The high degree of interaction between Ann, Jean, Lori, and Jane indicates the amount of shared information that they provide the focal group to influence the group's decision-making process. When a member assumes leadership control, they are more open to providing shared and unshared information without a preconceived discussion outcome.

Ann held a central role in most of the group's interactions, and this was reflective of her past role as its formal leader and her current role as the group's informal leader. Ann used her role as the informal group leader to influence group interactions to ensure the group's fundamental identity remained unchanged. I would argue that Ann was the self-proclaimed 'gatekeeper' for the group's identity—a role that she emulated when she provided access to of the focal group's historical documents.

4.8. Emergent Theoretical Stories and Visualisations

The concepts that have been developed in the analysis will now form the basis for explaining the focal group's dynamics that emerged over time as influenced by varying contextual circumstances. Explanations will be supported by visual flow diagrams as well as an approximate timeline trajectory from left to right.

Historical Context

The focal group's historical context is a story that encompasses their inception through to the commencement of this study. The historical context outlines the contributing influences (purple rectangular icons) that led to their creation and the development of their initial core behaviours (blue rectangular icons). The focal group's dynamics (green rectangular icons) were shaped as the group responded to changes in its contextual circumstances. Those responses generated consequences (light orange rectangular icons) that were demonstrated as focal group behaviours. Accompanying the focal group's evolutionary trajectory was a series of qualifying statements or descriptions of associated dynamic processes or outcomes (orange text attached to relevant diagram components) relevant to specific core behaviours, responses, and/or consequences. The data that was used to inform aspects of the

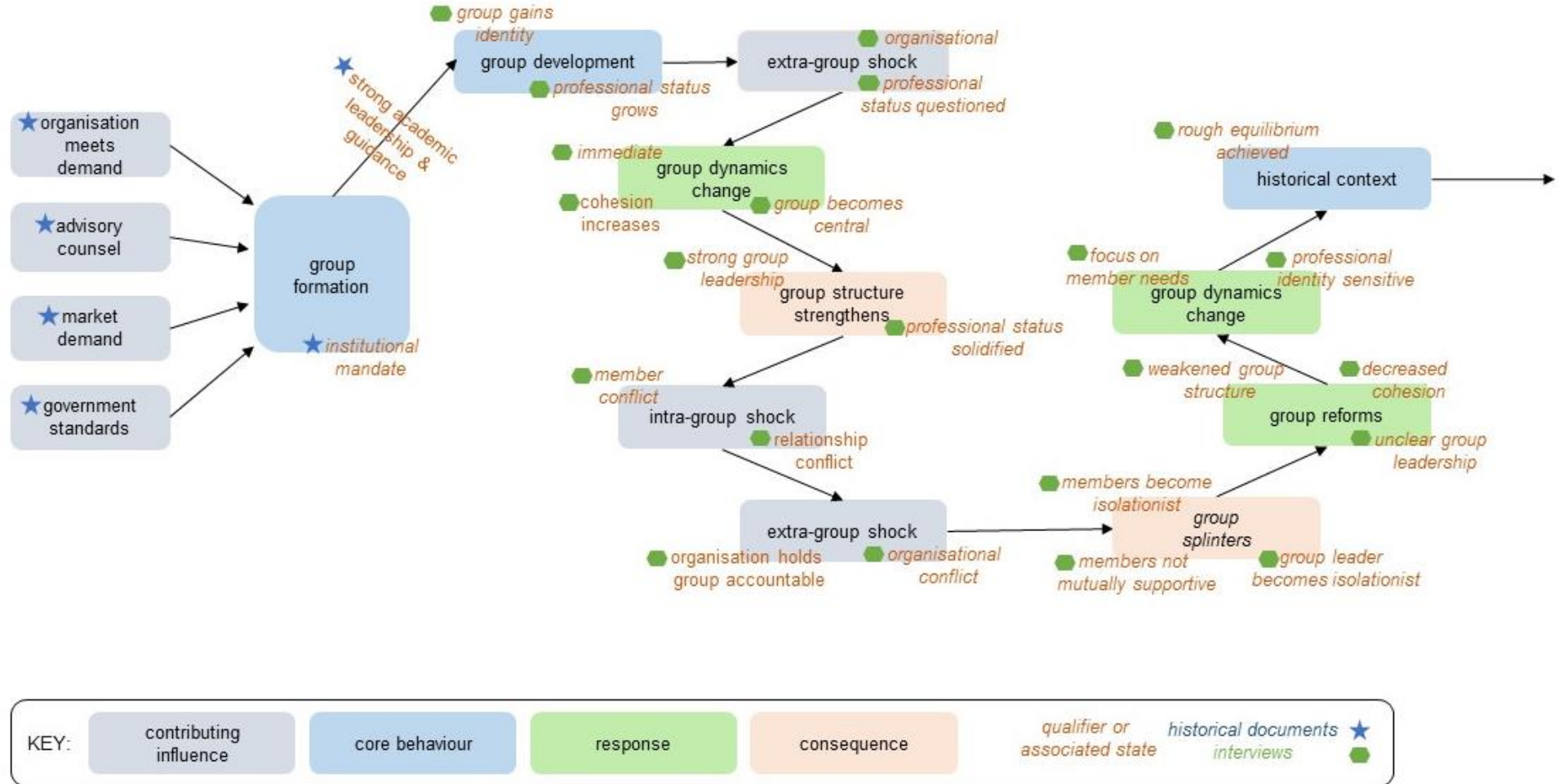
focal group's historical context was drawn from two sources: historical documents (small blue star icon) and semi-structured interviews (small green hexagon icon) (see Figure 4.12).

Since most of the focal group membership lacked a prior professional and personal relationship with their fellow members, the initial focal group lacked structure. However, despite lacking group structure, the members immediately coalesced when they suffered an extra-group organisational shock in the form of the award's professional status being questioned. The group experienced a system shock from its contextual dynamic layer in the form of positive feedback loops to change how it is viewed within the school of education.

In response to this shock, the group experienced negative feedback loops in their effort to maintain their behavioural equilibrium state, resisting adaptation. The group's resistance took the form of defiance without negotiation, with explicit rejection implying that adaptation would be harmful to the group (Oliver, 1991). The focal group sought to address this shock by assuming a fit conserving change posture (Siggelkow, 2001) where the group was unable to adapt to change from within its contextual dynamic layer. Assuming a fit conserving change position would have resulted in a gradual performance decline due to a lack of the group's recognition that a misfit existed. The focal group is expected to accept declining performance levels as the price to maintain their traditional identity and functional integrity (Siggelkow, 2001).

However, despite the focal group experiencing heightened levels of negative feedback loops, their level of structural cohesion actually improved with further density and centralisation (Kowalski & Jenkins, 2015) of member interaction within its intragroup layer. The increase in structural cohesion would have improved group function which runs counter to the expected performance loss when implementing a fit conserving change strategy. As the focal group experienced a state of fit conserving change, it began to solidify its identity at an early stage of group development. The group's identity was being formed by their first formal leader Ann who experienced a heightened level of professional status.

Figure 4.12. Historical Context



Her status was reinforced by members identifying more with the focal group and interacting more, both socially and professionally. The data did not reveal a change in the group's ability to perform after they incurred this system shock.

When the focal group incurred an intra-group system shock that morphed into an extra-group/intra-organisational system shock, it caused their structure, identity, and leadership status to crumble. The initial intra-group shock was caused by a member that had joined the group in 1999, and blocked group goal attainment and was focused only on meeting her individual needs. The group experienced positive feedback loops to accept this member's functional stance until she left in 2000. To adapt to this type of change to their contextual circumstances had the potential of overwhelming their resistive forces, encountering critical fluctuations and bifurcation resulting in the reformation of their functional integrity and identity.

As this conflict progressed, the university supported the new member's position, and the focal group found itself incurring an extra-group/intra-organisational system shock. The university now held the group accountable for the conflict and its resolution, causing an increase in the level of positive feedback loops experienced by the group that eventually overwhelmed its resistive forces. The group's resisted this change by openly defying without negotiation, and explicitly rejecting their need to adapt to being harmful to the group (Oliver, 1991). The group was facing a detrimental fit destroying change where both its internal and external fit incurred changes that made them no longer able to adapt its behaviour to meet the changes in its contextual circumstances (Siggelkow, 2001). An inability to adapt revealed internal and external fitness landscapes that were smooth and unable to provide a quick adaptation strategy that would allow the group to maintain its behavioural equilibrium state (Levinthal & Warglien, 1999).

The focal group tried to maintain their behavioural equilibrium state but incurred critical fluctuations, as they experienced a growing amplitude of positive feedback loops and a diminished level of negative feedback loops. The onset of critical fluctuations revealed a lack of resilience and adaptive capacity where the focal group was unable to shape change through self-organisation of its behaviours (Berkes et al., 2003; Smit & Wandel, 2006) while maintaining its functional integrity

(Adger et al., 2011; Adger et al., 2005; Walker et al., 2004). The fluctuations were demonstrated by the group's increasing inability to function, which reflected the group experiencing a detrimental fit destroying change. The critical fluctuations led to a bifurcation where the group assumed a new behavioural equilibrium state that was represented by degenerating into a dysfunctional group and forcing the formal group leader to take medical leave.

The new behavioural equilibrium state had the membership either supporting the formal group leader or choosing to be concerned with their individual needs. The focus on meeting individual needs reflected member actions of cooperation, competition, convergence and conflict that were selected and combined in a rational order by each member (Arrow et al., 2000), those members became self-managing. The shift in the behaviours of those individual members brings into question what was their attractor for focal group membership. Their actions to focus on self over the group would support that focusing on self in times of conflict was their attractor. More specifically, when an individual links an attitude to their material self-interests, that attitude becomes central when they perceive their material self-interests to be at risk (Boninger, Krosnick, & Berent, 1995).

The formal group leader changed her management style to maintain a distance between herself and the focal group, while simultaneously seeking to reform the group's fundamental identity to what it was before it experienced the intra-group and extra-organisational system shocks. Once bifurcation occurred with a shift in the focal group's identity and functional integrity they displayed behaviours that represented that shift, being resistant to change in any form no matter its source.

The maintenance of the group's fundamental identity was a strong individual need for Ann to meet. She had merged the maintenance of the focal group's identity with her professional status, where a change in identity placed her professional status in jeopardy. She placed a high value on her professional status, which she demonstrated by holding the roles of formal and informal focal group leader since the group's inception and evolution.

To enable Ann to meet this individual need, she leveraged her professional status, that was built on her early involvement in the development of the [First Program]

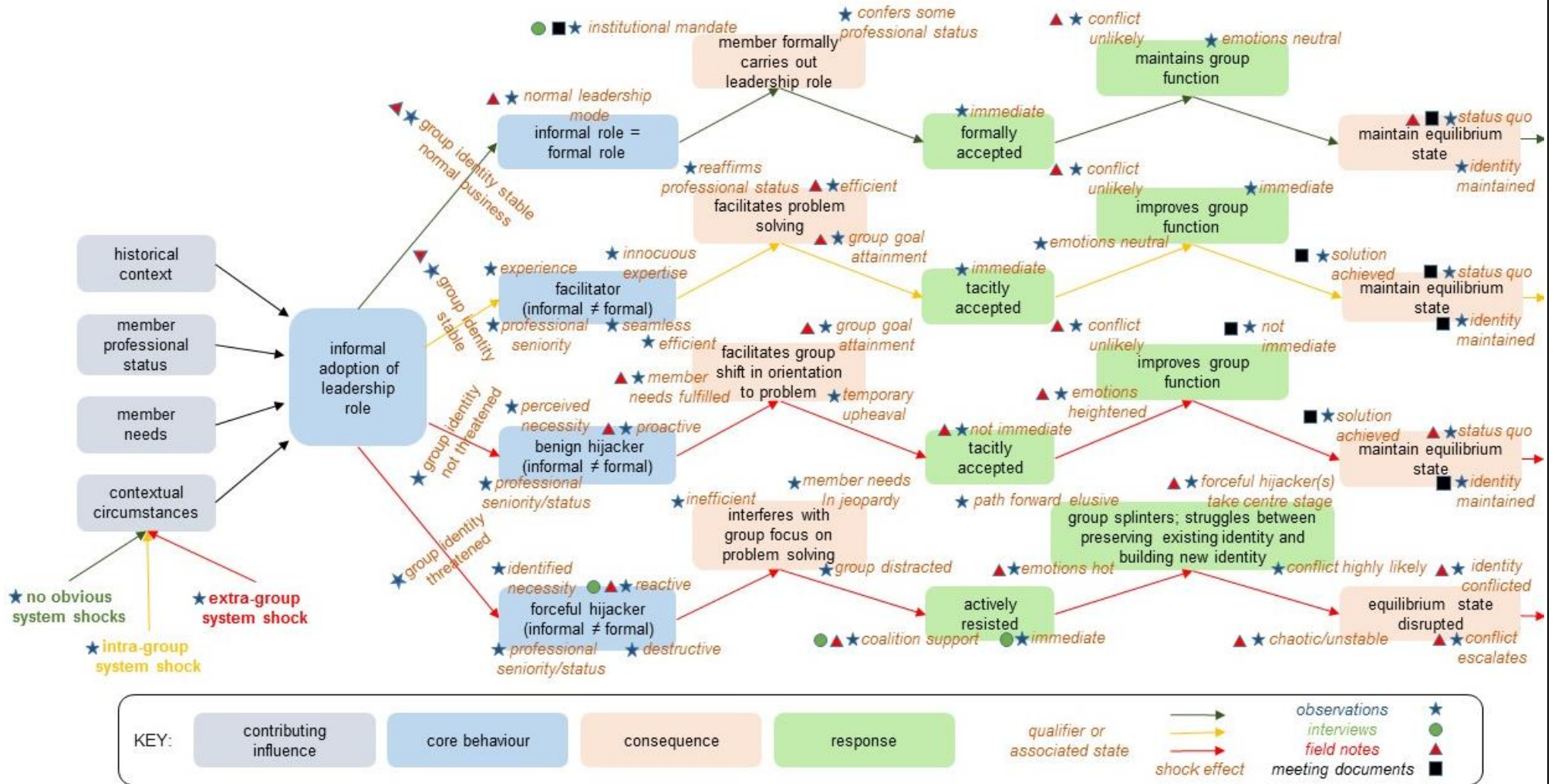
award, being responsible for the group's inception, and her professional seniority. Ann's focal group history provided her with a level of power she exerted to harden the group's fundamental identity and resist further attempts the change that identity. The historical context from which the focal group's behavioural equilibrium and identity were forged allowed Ann to resist adaptation of that identity over the 12-months of participant observation. Ann's use of her power occurred in isolation without negotiation with a collation or the group (McGrath, 1991) reaffirming the level of influence she held within the group (Hackman & Morris, 1975). Ann employed dyad and triads in her further effort to secure support for her informal leadership of the focal group (Carley, 1991; Uhl-Bien, 2006).

Leadership Dynamics

The leadership dynamics that emerged over the 12-months of participant observation were the adaptations made by the focal group to changes from within their contextual environment (see Figure 4.13). Those adaptations were states of behavioural equilibrium sought by the group, known as attractors (Thom, 1975; Zeeman, 1977). The focal group remained in a current behavioural equilibrium state unless they incurred positive feedback loops that overcame their resistance to change.

The changes that the group experienced were either typical or atypical problems that were a common or an uncommon occurrence. The changes from within its contextualised environment were identified as contributing influences (purple icons). Chief among those contributing influences were the group's contextual circumstances that changed in response to distinct types of system shocks. Each system shock generated an effect (green, yellow, or red arrows) that resulted in dynamic changes in the focal group leadership role: formal, facilitator, benign hijacker, and forceful hijacker. With each type of dynamic change to the leadership role, the focal group experienced different consequences (pink icons), evidenced by differing focal group behaviours or responses (green icons). Accompanying each system shock was a series of qualifying statements or descriptions of associated dynamic processes or outcomes (orange text attached to relevant diagram components) relevant to specific core behaviours, responses, or consequences.

Figure 4.13. Theoretical Overview



Leadership within the CAS model can be either formal or informal depending on the organisational structures that are in place within a group. When set organisational structures were applied the group experienced pre-determined leadership behaviours that had been mandated by an organisation in the form of formal leadership. Leadership that emerged from the ongoing process of interdependency, interaction, heterogeneity and changes in contextual circumstances led to the emergence of informal leadership dynamics that was facilitated by enabling leadership dynamics (Uhl-Bien et al., 2007).

Enabling leadership dynamics provided the group with the structure to move beyond formal leadership dictates facilitating the emergence of informal leadership dynamics (Dougherty & Hardy, 1996). A central enabling factor for the focal group was lack of a formal group hierarchy and the free discussion format demonstrated over the 12 months of observation. An informal leadership dynamic emerged when the need to attain a group goal and/or meet an individual need was not being met through formal leadership. As the group self-organised its available traits to address a goal or need, the social contributions by members emerged (Guastello, 2007). Social contributions in work related interplay were the ability to ask and answer questions, initiate new paths towards a solution, facilitate the growth of innovative ideas from members or continue a current line a reasoning towards a solution (Bottger, 1984; Guastello, 1995a, 1995b).

The member with the greatest level of social contribution assumed the role of an informal leader. The type of informal leadership dynamic that emerged from within the focal group reflected an overarching goal to maintain its identity and functional integrity through its resilience and adaptive capacity. The informal leadership role lacked predictability, while not consistently seeking to organise focal group behaviours to be in line with organisational goals and was dependent upon the interdependence between the elements of a group's contextualise environment.

The member who assumed a leadership role interacted with all three layers of the CAS model to varying levels while experiencing both positive and negative feedback loops as they lead the group through perpetually changing contextual circumstances. The ability for a group leader to maintain their formal or informal

leadership role was reliant upon an individual's capability to initiate or resist change to the focal group's identity and functional integrity. An ability that was aided by the support of members that sought to either facilitate the attainment of group goals and/or meet individual needs through the creations of dyads and triads

Formal leader. When the focal group selected a path to resolve a typical problem that commonly occurred and was perceived as consistent with the group's identity, they experienced the formal leadership dynamic, that was mandated by the university, the formal leader had a level of professional status recognised by the group. The efforts of a formal leader had the group experiencing path dependency that was immediately and tacitly accepted (recall Figure 4.13). Path dependency offered the focal group a recognised outcome that was arrived at through the administrative leadership actions of a formal leader "who plan and coordinate organisational activities (e.g. the bureaucrat function)" (Uhl-Bien et al., 2007, p. 306).

A formal leader was a top down role based on the authority given by senior management and had the power to make decisions for the focal group. The hierarchy of the formal leadership role offered a level of predictability and order (Snowden & Boone, 2007) while providing an alignment of member dynamics with organisational goals, where independence exists between the elements within a group's contextualised environment (Marion & Uhl-Bien, 2011). A formal leader typically provided shared information which the group gave more validity than unshared information towards decision making (J. Kelley & Karau, 1999).

In the CAS model, the formal leader resisted change causing the group to experience negative feedback loops until that resistance is overwhelmed by the forces of change, where leadership behaviours self-organised and emerged as an informal leadership dynamic. Informal leaders acted deliberately to shape contextual circumstances to either facilitate a more effective group process or to change its direction (Surie & Hazy, 2006) attain group goals or meet their individual needs.

Solutions chosen by a formal leader were from a smooth fitness landscape where choices did not vary greatly, being presented along a low sloped fitness landscape

peak (Levinthal & Posen, 2007), thus guarding against critical fluctuation and bifurcation. A formal leader's ability to resist change was increased by having a high level of professional status enabling them to speak freely without fear of "disapproval and/or negative personal consequences" giving them a state of psychological safety (Nembhard & Edmondson, 2006, p. 945).

In the following segment, Lori was the mandated formal leader and led the focal group through a discussion on workloads for the coming year. She applied problem-solving strategies or coordination networks that have proven successful in the past with similar problems. Her leadership was unopposed despite incurring numerous jump-ins, over-speaks, and gapless discussions that Lori was able to resist due to her formal leadership status.

The application of successful past problem-solving techniques opened the group to fall into the 'competency trap' where they are primed to apply past successful techniques despite receiving diminished performance returns from successive applications (March & Heath, 1994). Presence of the competency trap indicated the group was experiencing negative feedback loops with the application of past successful problem-solving techniques which represented resistance to change. Lori maintained leadership control which culminated with her offering a summative statement that was tacitly accepted by the focal group, (Doc 1-1, Line 4-63).

Lori: [AF] [OS] That's just where we're up to reviewing workload allocations including unit coordination; and check requirements for markers.

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Lori: [GD] The enrolment is the columns that's always been in this form, and that's we always [SB] [IS] until we know numbers I'm not going to put the actuals in there, so that is a predicted enrolment [UT]

Ann: [OS] And they're still accepting applications? [UT]

Lori: [AF] [OS] A lot of people are being enrolled quarterly [UT]

Jean: [JI] So the actuals are really the ones enrolled

Lori: [AF] [GD] The actuals are what is enrolled at this moment, and there is six weeks of enrolment to go but then [UT]

Jane: [SB] [IS] [OS] [Why is this not doing] [UT]

Lori: [AF] [OS] there is always attrition

Jean: [GD] You don't have many enrolments in your sheet do you Jane?

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- Lori: [GD] [AF] Last year we had to send our spread sheets in, in November, and they included an addendum in them, and they wanted this starting in November last year, but she [got ahead of them] [UT]*
- Group: [OS] [IS]*
- Lori: [AF] [OS] So they've already got all those contracts out and that's why we [UT]*
- Sue: [JI] But that's a good idea because it saves you a lot of work. I just did it based on actual knowledge with the change in [your beliefs] [UT]*
- Lori: [AF] [OS] The ones that have got asterisks in them, in the actuals column, that's where the number already has exceeded what we had in last year. Therefore, what I've done is, I've changed the number in those circumstances in the predicted column. I've upped that number. At the moment. [UT]*
- Jean: [OS] Because when you said it was higher, I got a bit confused. [UT]*
- Lori: [AF] [OS] You always have attrition, but at this stage with six weeks' enrolment still to go, I thought I'd be pretty okay to up that number.*
- Jean: [GD] Okay, now I understand, yes. That's great Lori, that's a better way to do it.*
- Ann: [GD] Very clever. No, it is, it's very good, (Doc 1-1, Line 6-63).*

Lori's ability as a formal leader was reflective of her 12-year academic career, with 10 of those years spent as a member being recognised by the focal group (recall Table 4.1).

Born and raised in Australia, Lori's cultural background was categorised as an individualist, and she had the terminal values of inner harmony, equality, accomplishment, and exciting life; standing up for her beliefs gave her an intense sense of self-efficacy (recall Section Lori, p. 166). These values supported Lori in the role as a formal leader and were demonstrated when she entered a conflict with Ann over the role the group would have with the [New Dual Degree] award (recall Section extra-organisational system shock, p. 214). During this conflict, Lori did maintain her formal leadership role and sustained the group's focus on how they would support the [New Dual Degree] award (recall Section extra-organisational system shock, p. 214).

Facilitator. The emergence of the informal adaptive facilitator dynamic (Uhl-Bien et al., 2007) occurred when a member identified the point in the problem-solving process where a new leadership structure must occur (Guastello, 2011). The typed of problem that preceded the emergence of this dynamic was typical but did not

commonly occur. The facilitator seamlessly applied their experience and innocuous expertise typically through the use of gapless discussion, over-speak or jump-in goal orientated dynamic. The immediate recognition of a member in this role occurred through the guise of professional seniority to enable group goal attainment. The actions a facilitator took were typically met with a low level of resistance since their leadership did represent an atypical yet positive adaptation to group behaviours as it dealt with a common change in the focal group's contextual circumstances.

The facilitator role allowed the focal group the opportunity to generate a more creative and innovative path towards problem-solving with the addition of shared / unshared information or resources (Uhl-Bien et al., 2007). The change represented by the additional information or resources caused the group to experience a low level of positive feedback loops. Despite this pressure to change the focal group's response to a facilitator was immediate acceptance, free from heightened emotions or conflict while improving function indicating that any behavioural changes experienced were not great enough to cause critical fluctuations and bifurcation (Vallacher & Nowak, 1997).

The lack of change indicates that the solution garnered from the information or resources strategies were chosen from a declining slope of a peak within a smooth fitness landscape (Levinthal & Posen, 2007; Siggelkow, 2001) that if selected would not lead to critical fluctuations (Kelso & Ding, 1993). Where the continued use of this type strategic choice will lead to a gradual decline in group performance over time by falling prey to the competency trap (Levinthal, 1992).

Immediate acceptance of the facilitator role indicates the focal group's resilience to learn from this experience, increasing its adaptive capacity. The focal group further demonstrated its resilience by self-organising its behaviours adapting to a member in a facilitator role while maintaining its functional integrity. Further, the immediate acceptance was evidence of informational influence applied by the facilitator when the group was facing an intellectual task, e.g. Liz's workload (Doc 2-1, Line 245-297). The effect of informational influence was heightened attention by the group to the information presented, where the facilitator was perceived to hold expert or informational power over the task facing the group (Asch, 1952; Deutsch & Gerard,

1955; H. Kelley, 1952). The facilitator displayed social contributions (Bottger, 1984; Guastello, 1995a, 1995b) by providing either information or resources strategies that led to improved group function (Stasser & Titus, 2006).

In the example below the problem facing the group did not threaten its fundamental identity and purpose. An effective resolution could be reached if the group was provided with the required communication or resource management. The facilitator dynamic typically was experienced when the group had to adapt to an intra-group system shock (recall Figure 4.13). The focal group had a member leave, Liz and was faced with trying to not only accommodate the immediate needs for covering the additional workload but the need to press the head of school to support finding a permanent replacement for Liz's position.

As the focal group attempted to adapt to this intragroup system shock, they experienced both types of the facilitator leadership dynamic. In the following segment, Jean seamlessly enters the discussion using a jump-in to facilitate the group with the distribution of Liz's workload across the new trimester system (Doc 2-1, Line 245-297).

- Lori: So for next year then, we can't do anything about we are going to change its somewhere up here, it's the plan for Trimester 2 for this year has got 340 with the unit I'll make a note [UT]*
- Jean: [JI] Why is 345 there? I'm a bit confused about this one. 345 is there.*
- Lori: [GD] Has that changed again.*
- Jean: [GD] And there's nothing there. Why is isn't there nothing there?*
- Lori: [GD] This is wrong [UT]*
- Jean: [OS] 333, [Social Justice] what's missing? What unit's missing?*
- Lori: [OS] [AF] Well maybe that's that's wrong, 345 can't be there because oh.*
- Jean: [GD] Something's missing.*
- Lori: [GD] 344 is missing, that's it.*
- Jean: [GD] It is too.*
- Lori: [GD] So 345 can't be there.*
- Jean: [GD] And 344 not offered in Semester 2.*
- Lori: [GD] No, so that's why 345 can only be there [UT]*
- Jean: [OS] So this is what oh this is suggested. This is your new suggestion?*
- Lori: [OS] [AF] This must be suggested though Cindy sent me what's up there. it mustn't be what's up there.*
- Jean: [OS] No [UT]*
- .
- .
- .

Lori: Because 344, 340, and 391 are only offered in the first trimester. so, we can't swap them with another do you know what I mean we can't swap them with something else.

Jean: [GD] I see what you mean[UT]

Lori: [OS] Because they have to be [UT]

Jean: [OS] Unless somebody goes full time.

Lori: [OS] [AF] either in the first trimester the year or the first trimester in the second year. They have to be there because they can't do them in the second trimester.

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Jean: [AF] [JI] So it's 391 is the most logical one [UT]

Katie: [JI] The other thing that might not be so bad, is that they'll be starting out with a kind of a 391 unit and then there ending with one too because the one that Lori teaches at the end of their program [UT]

Lori: [JI] Oh, at the end of the fourth year? [Laughing] [Self]

Jean: [AF] [GD] Well it is the fourth year, but a lot of them take it [UT]

Lori: [OS] Oh yes.

Jean: [AF] [OS] you know.

Group: [SB][IS]

Jean: So, what do you think Katie?

Katie: Oh well, yeah it can be done. I would want to think about some of the ways it's presented, to make it easier. Some things, I think, would have to be more explicit than perhaps [UT]

Jean: [OS] Yeah.

Katie: [AF] [OS] than they've been in the past because the students won't have been thinking what I've done in 391, is I've encouraged the students to draw on what they've already done, but they're going [UT]

Lori: [OS] Yeah, yeah (Doc 2-1, Line 245-297).

Jean innocuously applies her expertise by entering the discussion, questioning her lack of understanding of the direction taken by a discussion. Entering a discussion from a position of weakness is very disarming to the formal focal group leader, lessening the chance of incurring opposition from the formal leader or the group. In Jean's role as a facilitator, she enabled the group to efficiently solve the problem of accommodating Liz's 391 unit in the new trimester system, reaffirming her professional status within the group.

Jean's role as a facilitator was tacitly and immediately accepted due to the focal group recognising her 14 years of professional seniority (recall Section Jean, p. 161). Jean leverage her professional status by being a frequent contributor to group interplay, at 21.15% of the total interplay, over a 12-month period (see Appendix

10). Her level of interplay was reflective of being born and raised in Australia, which gave Jean a strong individualist cultural background. Coupled with her desired terminal values of gaining social recognition and her work values of being success and achievement orientated, this gave her the self-efficacy to speak her mind when facilitating group goal attainment (recall Table 4.1). The focal group experienced an immediate improvement in function that was obtained free of conflict or heightened emotions. Jean's role as a facilitator allowed the focal group to maintain its fundamental identity and behavioural equilibrium state.

The management of focal group resources tended to focus on allocation decisions that required a facilitator. The resources that were being allocated were skills, time, and physical resources. Unlike communication management, resource management enables the group to make decisions on the allocation of tangible resources that either the group or a member have placed value on. Given the need to allocate tangible resources, a member assumed the resource management role had to have a readily identifiable level of experience and status conveyed to them by the group. Decisions on resource allocation were typically reflective of past allocation decisions that were applied to similar contextual circumstances.

In the segment below, Jane assumed the role of a resource facilitator with her assistance in solving how they will offer a set of new units (Doc 5-1, Line 448-465).

Lori: So what do you with this one, what's the plan with [external program provider], that they [UT]

Jane: [JI] Well the [external program provider]

Lori: [AF] the unit and it's a university unit.

Jane: [GD] Well the [external program provider] thing is completely open for negotiation. I mean, there are no rules, so what I where I came from, what we actually had is we had a set of six [placement] units, and I know this is different to this course. So, this won't work exactly in this course, but what we had was a set of six [placement] units and so we matched units of competency to each of those [placement] units. So, for the first year, first semester [placement] unit, there were six units of competency at [external program provider] that together made up one university [placement] unit, and so the students would enrol in those six units of competency. [external program provider] would teach just our students together, so they packaged those six together and taught them just for our students. When they completed those set of six units of competency they came back to us and we gave them advanced standing in a shell unit. So, on their transcript they only had university level units but

[external program provider] of course got paid more than what almost double for every bum on seat for those six units of competency than we got for the HEX so they could staff them really well. So, one option is to actually match a set of units of competency to the learning outcomes for the units we've developed and say to [external program provider]. You teach that whole unit which will consist of five or six units of competency are usually around the equivalent of a uni level but you've got to look at the hours on each unit of competency because each one is different. So, you have to do a bit of matching, so you could either do that or you could say, here's one unit I'm going to teach this amount of academic content and you're going to go off to [external program provider] and do maybe three units of competency for the rest of the unit. So, you might actually do a sharing within a unit. Either way it requires us to look at the [external program provider] units of competency and say where does their content match where we've put the content in our course. Of course, in a perfect world we would have known about this when we developed the units our units and shaped our units around their program [UT]

Jean: [JI] [RS] their program

Jane: [AF] but we didn't know so we haven't.

Betty: But it's still possible. I'm just thinking about the play one, you know I could easily do that with play in the [external program provider] do with their play in [UT]

Jane [OS] Exactly.

Betty: [AF] you know their sections

Jane: [GD] Exactly and particularly where we have [placement]s. If [external program provider] do [UT]

Group: [OSQ] Yeah

Jane: [AF] [OS] the [placement]s, the [placement] component of a unit it is a million times easier because we don't have to do any of it

Group: [IS]

Jane: Yes, because they have the insurance, they have the placement. They have the processes [[um]] we don't have to reinvent them [[um]]

Barb: They have those little play groups that come [UT]

Jane: [OS] Yeah

Barb [AF] [IS]

Betty: [GD] That would be perfect, yeah (Doc 3-1, Line 314-329).

Jane's solution was based on her expertise and experience as she seamlessly presents it to the focal group. The solution offered the group a way of having an external program provider of a set of introductory units allowing the group to maintain its current unit offerings unchanged. Her solution offered the group an efficient and effective option while reaffirming her professional status within the group. Jane was a frequent contributor to group interplay (13.65%) (see Appendix 10) where she offered mostly commentary during group discussions (recall Section

Jane p. 170). The group recognised her twenty-two years as an academic and her senior group role (professor) with their immediate acceptance of her in the facilitator role. The discussion of Jane's solution was void of conflict, with emotions neutral, while immediately improving focal group function by offering a viable option. The outcome of Jane's influence as a facilitator was the maintenance of the focal group's fundamental identity and behavioural equilibrium.

Hijacker. The focal group experienced the hijacker leadership dynamic when a member perceived the group's pathway towards the solution of an atypical problem that was an uncommon occurrence as being either consistent (leads to benign hijacking) or contrary (leads to forceful hijacking) to their individually held views about the group's fundamental identity and purpose (recall Figure 4.13). The emergence of the hijacker dynamic occurred at the point in the problem-solving process where a new leadership structure was judged to be required (Guastello, 2011) to shift group function to be aligned with a hijacker's individual needs and/or meet organisational goals.

The new structure required the group to be exposed to a level of change or resistance to change as deemed necessary by the hijacker. The hijacker role was an informal adaptive leadership (Uhl-Bien et al., 2007) role that was enabled to either provide the opportunity to generate a more creative and innovative path towards problem-solving or create resistance to proposed change that placed the group's identity in jeopardy.

When a group incurred either benign or forceful hijacking, they experienced positive and negative feedback loops that could result in the onset of critical fluctuations. In the case of a benign hijacker, those fluctuations did not reach a sufficient amplitude to cause a bifurcation. The forceful hijacker dynamic emerged when the focal group's identity and functional integrity were threatened. The tension between the forces of change and resistance to that change reached a level the resistive forces were overwhelmed and critical fluctuations and bifurcation occurred.

The goal-oriented dynamic used by the hijacker was typically a jump-in, which offered a quick method of entering group interplay to gain group leadership control. The allowance of a jump-in by the group implied that the member was using this

goal-orientated dynamic had a level of status and seniority recognised by the group, while seeking power over the discussion and its outcomes (Godfrey et al., 1986; Rudman, 1998).

Benign hijacker. A benign hijacker dynamic occurred when the focal group was facing a change in its contextual circumstances that required it to adapt its behaviour in a manner that was not threatening their fundamental identity. The benign hijacker role was an informal adaptive leadership (Uhl-Bien et al., 2007) role that was experienced when a member held a belief that the focal group was following the wrong path towards a solution. That belief became strong enough that it self-organised and emerged as a benign hijacker (Guastello, 2007).

The emergence of this role occurred proactively to assist with focal group goal attainment while meeting the hijacker's individual needs. Leadership control was assumed by a benign hijacker through the application of their specific status (Ridgeway, 2001) and informational power (unshared information) (Asch, 1952; Deutsch & Gerard, 1955; H. Kelley, 1952) related to an outstanding task. Redirecting the group down what the benign hijacker perceived as an improved path towards problem resolution. Initially, the focal group resisted the benign hijacker's change in direction, mounting resistive forces to the proposed change, causing an upheaval in group function.

The tension between the forces of change and resistance was revealed through heightened emotions void of conflict. The upheaval delayed tacit acceptance of the unshared information that eventually led to an improvement in focal group function (Stasser et al., 1989; Stewart & Stasser, 1995). Lack of immediate acceptance of the benign hijacker's leadership indicates a delay in the group learning the benefits that role can convey. The presence of an upheaval as evidenced by heightened emotions reveals an increase in behavioural fluctuations and if the conflict had occurred critical fluctuations and bifurcation could have been experienced. Despite the evident lack of critical fluctuations, the delayed learning by the focal group is evidence of weakening level of resilience (Folke, 2006) as they experience greater changes in their contextual circumstances.

With the focal group incurring a level of internal behavioural adaptation while that resulted in improved performance indicates a benign fit-destroying change occurred. Change of this type indicates that the focal group had a smooth internal fitness landscape where substantial shift between strategic responses is slow to meet a change in its contextualised environment (Levinthal & Posen, 2007). The slow response by the focal group is evidenced by the temporary upheaval it experienced before tacitly accepting the change offered by a benign hijacker (Levinthal & Warglien, 1999).

In the following segment, the focal group, under the formal leadership of Lori, experienced an extra-group system shock that did not threaten the group's fundamental identity. Betty assumed a benign hijacker role, leading the group using a jump-in to get the group to consider her solution to their teaching resource problem (Doc 3-1, Line 853-935).

Betty: [JI] I'm wondering if they would do a deal with me. In 2013, I really want to go on another artist in residence thing. If I were to teach that for my trimester would, they give me time to go and do an artist in residence thing?

Lori: [GD] Well T2 was [UT]

Jean: [OS] Is it T2?

Betty: [GD] I don't know, you know I don't know, [UT]

Ann: [OS] pick a date because

Lori: [GD] If it is enough you can the next year take all your load in one trimester?

Betty: [GD] Yeah.

Lori: [GD] You can say, well I'm going to take whatever you'd have to load, and significant load so that you didn't have too much you'd have a trimester without teaching and you'd arrange that what you do with that trimester would have to be made with Fred.

Betty: [GD] Yeah.

Jean: [GD] So effectively, that would mean that of the six trimesters over two years we're all going to be teaching four. you'll just teach four in a row, or that's what you're saying [UT]

Group: [OS] [IS]

Jean: [AF] [OS] or three and then [UT]

Group: [OS] [IS] [UT]

Jean: [AF][OS] two breaks and then one.

Betty: [GD] But that's no good to me, you know if I'm not allowed to go and do my artist in residence [UT]

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- Betty: [GD] No, the reason I wanted the two trimesters off is because an artist in residence, you do a month there. It actually takes six months just to [UT]
- Jean: [OS] Oh ok [UT]
- Betty: [AF] [OS] you know?
- Jean: [GD] So you need two trimesters off in a row?
- Betty: [GD] Yeah, yeah.
- Jean: [GD] Well it might work for you to do that.
- Betty: [GD] Because otherwise I just don't get the body of art done.
- Jean: [GD] The only issue you'd have really is if you worked Trimesters 1, essentially you should be able to do that [UT]
- Betty: [OS] Or even if [UT]
- Jean: [AF] [OS] it's only about loads [UT]
- Group: [OS] [IS] [UT]
- Jean: [AF] [OS] So it you do T1, T2, T3 and then have like one and two off, for instance, then you could teach T3, but it's just whether you get load in T3, although by the sounds of it there will be load in T3 [UT]
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- Lori: There is another implication I've just realised if 310 is offered. we already have 65 in 345. If 310 is offered, people enrolling might enrol in 310 and 345. That would make it an even bigger (ah) unit. Whatever automatically some of them would drop out, but they will enrol in [UT]
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- Lori: And the other possible implication for the team is that I'm putting in for SSP, if I got it from December to May, I will not be here in T1, and that's the first trimester of the [New Dual Degree] award with internal courses [BN] so it just means, yep [UT]
- Ann: [JI] So that only means 310 but the did you have one of the 100 units as well as the 200?
- Lori: Yes. I've got Liz's as well. (Laughing)
- Ann: It does mean, it doesn't mean you necessarily have to do those other things, that's why it's very soon we're going to have to start looking at least those 100 level units [IS] flesh them out.
- Jean: So basically, if I'm just conscious that we're over time now anyway, so with this you are going to write an email to Fred just pointing out that we have issues with [First Program] award we have issues. [UT] (Doc 3-1, Line 853-935).

The problem was the focal group's lack of teaching resources that they could apply across three consecutive trimesters. Betty's solution was to offer herself as the teaching resource that could resolve the group's teaching problem and to enable

her to spend a year as an artist in residence in Europe. The solution offered by Betty did create a temporary upheaval in group function because it created conflict with the plans for Lori to take her professional leave, the group's need to provide teaching coverage, and the possible change to the group's fundamental identity. Betty's solution would have assisted in group goal attainment, but due to the upheaval, it took the group some time to accept her solution as a possibility. During Betty's leadership, the group interplay was calm and lacked heightened emotions, with points being raised concerning issues the focal group had with her solution. Eventually, the group came to understand Betty's solution would not effect a change in the focal group's fundamental identity or behavioural equilibrium.

Betty was a senior member of the focal group for six years of her 16-year academic career (refer to Table 4.1). Over Betty's 16-year academic career, she had developed a clear sense of what her individual needs were, and teaching across three consecutive trimesters fulfilled one of those needs (recall Section Betty, p. 169). In her role as a benign hijacker, Betty reflected her terminal values of accomplishment, inner harmony, and to lead an exciting life (recall Section Betty, p. 169). She was a strong individualist that sought to meet her individual needs over focal group goal attainment, which brings into question her true motives behind assuming a benign hijacker role (recall Section Betty, p. 169).

Forceful hijacking. The forceful hijacking dynamic was an adaptive leadership dynamic that was caused by a member's belief, which created a need, that comprised the view that the focal group was on the wrong path towards a solution (a pathway dictated by outside forces, for example). The path to solution threatened to alter the group's fundamental identity through bifurcation. The imperative then became to prevent the group from following this path by forcefully wresting control over the group'—i.e., exerting personal power to take charge and push the group toward a different solution path—one that will preserve the group's fundamental identity and meet individual needs. The role was applied reactively, typically through the use of the goal orientated dynamics of a jump in, where the forceful hijacker assumed a combative posture marshalling resistive forces to what they perceived was a fit destroying adaptation to changes in its contextualised

environment (Siggelkow, 2001). Where the group's internal fitness landscape had to shift, it moved across its rugged landscape to adapt to those changes (Guastello et al., 2005), an adaptation that would lead to critical fluctuations and bifurcation (Vallacher & Nowak, 1997).

The trigger to act for a forceful hijacker was embedded in their relationship with the focal group and its historical context. The forceful hijacker saw their membership become part of their social identity, providing social and emotional value (E. Smith et al., 2007). Taking this perspective, a forceful hijacker perceived a shift in the focal group's identity had emotional relevance like what they experienced in their personal life (Frijda, Kuipers, & Schure, 1989). Adding emotional relevance provided a forceful hijacker with an increased imperative to resist a shift in the focal group's identity.

The forceful hijacker's resistance became an open conflict where the goal of adaptation was deemed incompatible with the needs of the hijacker (Boulding, 1962; Korsgaard et al., 2008). Due to the social identity or common-bond (Prentice, Miller, & Lightdale, 1994) held by the forceful hijacker with the focal group the level of conflict became a relationship conflict that involved affective components of anger and stress (Amason, 1996; Pinkley, 1990). The forceful hijacker (Ann) had raised the level of her resistance to the point of threatening to resign from the group and the organisation which ultimately failed to stop the proposed change (Doc 9-1, Line 767-769).

Ann: This is hitting the core of the [First program] award, and we will lose students to the [New Dual Degree] award program.

Jean: Yeah anyway time to go I reckon

Ann: Maybe it is time to retire? (Doc 9-1, Line 767-769)

Being a self-managed group enables the concentration of decision making powers within the focal group (Metlay et al., 1994; Salas et al., 2009), along the lines of membership tenure further enabling a forceful hijacker to mount resistance to change. To marshal those resistive forces, the forceful hijacker demonstrated the need to control aspects of the focal group and its interplay (Harms et al., 2007). Control came in the form of normative mechanisms where the hijacker motivated members to attain goals and meet those individual needs only they endorsed

(Sorrels & Kelley, 1984). While rejecting those behavioural adaptations that were perceived as leading to critical fluctuations and bifurcation.

Compliance with these mechanisms was a process of social identification (Ashforth & Mael, 1989) and social categorisation (Tajfel, 1982) that caused an internalisation of group norms (Kwok, Au, & Ho, 2005; MacNeil & Sherif, 1976) used to augment a forceful hijacker's resistance to change. The position of control provided the forceful hijacker with the ability to have the focal group immediately experience elevated levels of negative feedback loops against the onslaught of the positive forces of change which led to the group experiencing open conflict.

The presence of open conflict led to the focal group to become dysfunctional, experiencing critical fluctuations and bifurcation. The group experienced bifurcation and did self-organise into a new state of behavioural equilibrium. However, that shift to a new state was a punctuated shift with the focal group demonstrating little in terms of learning indicating a loss in resilience and adaptive capacity (Carpenter, Walker, Anderies, & Abel, 2001). When bifurcation occurred, the shift to the new state was void of heightened emotions and elevated levels of conflict.

In the following segment, Lori the formal leader, leads a discussion on the status of the [New Dual Degree] award when Ann forcefully hijacked the leadership of the focal group using a jump-in [JI] (Doc 7-1, Line 372-425).

Fred: With the the [New Dual Degree] award, the status is this that is we had a dual sector meeting this morning with external vocational program provider in [First Program] award and Jane Doe from Strategic Projects Group. There is no money for the [First Program] award— for that program to come in next semester, but there is money to rewrite or revamp units, and we can apply, and this is what Mike and I are going off to do, is to apply for a whole bucket load of money out of the [Jargon] to get up innovative programs and this is what we were going to call it, an innovative program. So, on one hand, there is no chance of getting an external vocational program provider in [First Program] award to teach and getting a dual sector partnership relationship for that particular [Education Discipline], but there is some money there that we will target to go and get the external vocational program provider in [First Program] award, people, to write these units [UT]

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- Ann: [JI] But it already is such a complex course [UT]*
- Jean: [OS] Oh I see the carry over [UT]*
- Ann: [OS] [AF] on and off [UT]*
- Jean: [OS] [AF] for the 300 and 400 [UT]*
- Ann: [OS] [AF] [First Program] award and the [New Dual Degree] award [UT]*
- Jane: [OS] But we are not using it [UT]*
- Ann: [OS] [AF] 116 days of [placement] [UT]*
- Lori: [OS] it's the new unit*
- Fred: [GD] so we've got to boundary it, and so okay we'll get the support from resources so we can actually do it properly within the house, online and on campus. So as soon as some people are identified to take those units, we'll work with them [UT]*
- Jane: [OS] we've already done that*
- Fred: [OS] [AF] we'll resource [UT]*
- Ann: [JI] Well we haven't totally identified whose going to be the writer or the teacher necessarily of each one; we have the people who did the original development, and that's part of our next interactions with Mike and Zoe is, who will do this next set of documents for the BDFDUB paperwork so that that accreditation can be submitted, but we then really have to decide who wants to write the unit or be responsible for coaching someone else to write it if we have the money, and who wants to be the coordinator for next year for those four T1 new units (Doc 7-1, Line 372-425).*

Ann enjoyed a triad of support with Jean and Jane in her role as a forceful hijacker (Uhl-Bien, 2006). Ann perceived the focal group as taking the wrong path to resolve how the [First Program] award should adapt to support the [New Dual Degree] award. Ann viewed Fred's (Head of School) path to resolving this issue as running contrary to her individual needs and suggested it would result in a change to the focal group's fundamental identity. Ann maintained the perspective that the group must continue to support only the [First Program] award in an analogous manner as they had since its inception to preserve its level of desired function. Ann's depth of belief had reached a level where adaptations to the [First Program] award would cause adverse changes to her professional identity and status.

Ann was the first formal leader of the focal group and the lead contributor to the creation of the [First Program] award (recall Section Ann, p. 159). Ann's long involvement with the group and the award had caused her to merge her professional identity and status with the maintenance of the group's fundamental identity, (recall Section Ann, p. 159). Her professional identity and status built upon the attainment of the terminal values—inner harmony, equality, and

accomplishment—that were all deeply rooted in the maintenance of the focal group and award. As the discussion progressed, emotions were running high, and Ann and Fred raised their voices as Ann pressed her point and Fred defended his position (Doc 7-2, Line 13-14).

- *Ann and Fred raised voices getting heated*
- *Speakers are talking in a very rapid fashion (Doc 7-2, Line 13-14).*

Fred is unable to apply his preferred management style of gaining a consensus of support for the focal group to adapt and offer their support for the [New Dual Degree] award (Doc 11, Line 93-95).

Fred: All the time, so I know that if say, I'm trying to win a war here, you know I'm looking for support for the University, I have to take everybody with me, and I work from the front, so it's sort of like we as a group decided to do this. So, I now the power of that group. When the hard - you know, the buck has to stop somewhere, and I'm prepared to take that, but I rely on good evidence, good support, knowing what I'm talking about is well received, well-rehearsed, well thought through, because I reflect the opinions of lots of people.

Keith: So, you're a consensus builder?

Fred: Yes, confident about that. So, I don't think I'm firing off willy-nilly or without consideration (Doc 11, Line 93-95).

Ann's experience with past heads of school had proven to be less than supportive of her and the focal group when they faced problems in the past. In the segment below, Ann recounts how the head of school and the university failed to support her and the group when they were faced with an intragroup system shock (Doc 2, Line 507).

Ann: but part of that was dealing with the Head of School and the Dean at the time and them being in some ways aware of what all the issues and concerns were but not really stepping up and doing something, so that in the end it took us 18 months, nearly two years (Doc 2, Line 507).

The historical lack of support from senior university management made Ann suspicious of the head of school's motives. The lack of management support caused a sharp decline in focal group function when they experienced an intragroup system shock (Doc 1, Line 310-320).

Jean: But they were, um, they were, um, they were so supportive, and they gave us that authority, so we just [pause] I don't [pause]. The the issues

that we had in our team were about personalities at different times, and we certainly had that, um.

Keith: Yeah. You have one particular dark time.

Jean: Yeah. We did have. And that was, and that was very stressful, and it meant that we, it meant that we couldn't, um, we couldn't be as collaborative, you know like a meeting. You, you dreaded going to meetings rather than going, "Oh beautiful, we've got a team meeting". (Laughter) you know, like its sort, uh

Keith: Yes.

Jean: So, in a way it stripped our authority to a point because we couldn't, uh, as a team we couldn't make decisions very well.

Keith: So, you were, you were hampered definitely hampered.

Jean: Oh yeah, it seemed so, almost internally hampered rather than someone else telling us we couldn't do it.

Keith: Yes.

Jean: It would be [pause] we could, we just couldn't get agreements, so we couldn't do it.

Keith: So, so

Jean: So, we couldn't get, we couldn't move forward, and that was really hard (Doc 1, Line 310-320).

Fred's efforts to build a consensus was represented by a series of positive feedback loops, pressuring the focal group to change its fundamental identity. Ann, who was hardened by her experience during the group's inception and evolution and saw the need to protect the group and the [First Program] award and adaptation to the group's identity was not a route that Ann supported. In the segment below, Mike attempts to support Fred but fails to stop Ann as she continues to press her point. The discussion shifted from a status report by Fred to the viability of the school of education offering the [New Dual Degree] award. The discussion became very heated, with the application of numerous over-speaks and the random jump-in, locking Ann and her triad of support in opposition to Fred (Doc 7-1, Line 426-451).

Jean: [GD] So Fred, for the – so for our first four units for instance, that are only going to be to the degree that isn't going to [External Service Provider], are they going to run in [External Service Provider]? Are they going to run in that learning management system?

Fred: Oh, no there might be units that are offered in the - in what the [First Program] award [UT]

Mike: [OS] because you see, there a few units your degree that go across all courses awarded, the other course is in [External Service Provider] [UT]

Ann: [OS] and that is something to [UT]

- Mike: [OS] [AF] so consequently by default you cannot have this unit basically saying, this course will be awarded, but there will simply by other courses that are with [External Service Provider] [UT]*
- Jane: [JI] So what we're saying is anything that is associated with the primary component of the course goes into [External Service Provider] but the [First Program] award component of that course, will that also have to go in [External Service Provider] [UT]*
- Jean: [OS] Given that the*
- Jane: or [IS] [UT]*
- Jean: [OS] [AF] degree is then in [External Service Provider] [UT]*
- Fred: [OS] that is right*
- Jean: [OS] [AF] And it is not in our other degrees [UT]*
- Ann: [OS] I am not sure [UT]*
- Jean: [OS] [AF] We actually [UT]*
- Ann: [OS] [AF] we can answer [UT]*
- Fred: [OS] Yeah [UT]*
- Ann: [OS] [AF] we don't know that for sure, for the 100/200s we just don't know at this stage*
- Fred: [GD] There is – it's at a very sensitive stage with the [External Service Provider] project and [UT]*
- Ann: [OS] we'll have to wait and see [UT]*
- Fred: [AF] [OS] you can try and read between the lines [UT]*
- Jane: [JI] so the argument that we can't go into it because part of the degree is in [External Service Provider] even though it's not our part*
- Ann: Well our 300 and 400s will be [UT]*
- Jane: [OS] But it is not our ones to keep [UT]*
- Ann: [AF] [OS] Yes, we are in third and fourth year*
- Jean: [GD] Yes but not our 100s and 200s [UT]*
- Ann: [OS] Not the 100's or 200's [UT]*
- Jean: [AF] [OS] and I guess you have to wonder if whether [External Service Provider] will let us use their management system (Doc 7-1, Line 426-451).*

Despite Ann raising concerns and pressing her point over how the [New Dual Degree] award would not fit into the [External Service Provider] program in her attempt to delay or stop the [New Dual Degree] award altogether, as she later revealed during the September 2012 focal group meeting, Ann stated that she was against the [New Dual Degree] award's view that the [First Program] units should not teach how to instruct children ages 0-8 years but be in line with her philosophical view that [First Program] units only teach how to instruct students ages 0-5 years (Doc 9-1, Line 352-354).

- Ann: [OS] [AF] philosophical basis I do not believe in (0-8) years and do not see the need [First Program] award is (0-5) years*

Lori: [OS] Okay... [UT]

Sue: [GD] that is your purgative and that was the ...[UT] (Doc 9-1, Line 352-354).

At this point in the discussion, the focal group ceased functioning as a group with the discussion centred around Ann, Jean, Jane, and Fred. Conflicting sides within the group took entrenched positions, causing the group membership to splinter into three sub-groups: those for and against the adaptations and those who took no position on the issue, remaining silent. Ann's active resistance created a conflict within the group, where the group had shifted its focus from adapting to the changes represented by the [New Dual Degree] award to meeting Ann's individual need of maintaining the focal group's fundamental identity (Doc 7-1, Line 452-478).

Fred: [GD] let's not even go down that track

Jean: [GD] Okay

Fred: [GD] let's just [UT]

Ann: [SB] [OS] [IS]

Fred: say okay we'll take the money and run and develop the units and just do [UT]

Mike: [OS] but in the process that Fred was mentioning, we will be writing up a proposal for the trimesterisation maybe \$150,000 that will enable us to assist in this further, but I guess the question then is this? Who will be writing the units [UT]

Jane: [JI] well we need to make those decisions. For example, I'm writing one, and that's absolutely fine but giving work release for T3 is a complete and utter waste of time because I haven't got any teaching in T3 from which to be released. So [UT]

Fred: [OS] so, we'll give – yes that's right, so there the issues we [UT]

Ann: [JI] so it's how soon the money is available and when people want it; some people may want to write in T3, but they can still get some money that might help them for conferencing.

Fred: [IS] [UT]

Jane: [JI] If we can get money for T3 then I'd take it as a credit into T1 next year or something

Fred: [JI] [AF] You can do that [UT]

Ann: [OS] It all adds [UT]

Fred: [OS] [AF] Everything [UT]

Ann: [OS] [AF] up for next year

Fred: [OS] [AF] can be resolved and all these things, but we need innovative units, so we're using part of the TBQ money to revamp some of the problem units, not this course of course [UT]

Jane: [JI] But it's a bit hard to be innovative when you don't know what learning management system your using. I guess you have just to assume that you're going to the Moodle facilities

- Ann: For the 100s and 200s maybe [UT]*
Fred: [OS] Yeah
Ann: [OS] [AF] that's the assumption we make at this stage
Jane: So, you [UT]
Ann: [OS] So you have the [UT]
Jane: [OS] [AF] you can use the Moodle technology and the Moodle dynamics [UT]
Fred: [OS], So it's [UT]
Ann: [OS] [AF] The other part being innovative with the concept from the learning, [UT]
Fred: [OS] [AF] Yeah it is using [UT]
Ann: [OS] [AF] learning outcomes [UT] (Doc 7-1, Line 452-478)

In the end, Ann, the forceful hijacker, was unsuccessful in leading the focal group to resist adapting to the changes brought forward by the head of school. The group had to change its fundamental identity and incurred a shift in its behavioural equilibrium state, caused by its adaptations to its group dynamics caused by the group's need to accommodate the changes it incurred by supporting the [New Dual Degree] award (Doc 7-1, Line 488-496).

- Fred: [GD] So Lori, if you sort of want, we need to get people here to talk to us about how you do that, let's do it while we've got these resources to do something. While we've got, a chance let's do something about it.*
Ann: [GD] If you didn't want to do this new course it would have been good to bring together. - particularly for those that are going to be teaching first year [coughing] and bring together the primary PDF as well as the [First Program] award team, so that anyone involved in that new course particularly those in first-year units can all meet together in terms of looking at those
Lori: [GD] So Fred, if we could identify someone we could pay to bring them up here [UT]
Fred: [OS] Once we get [UT]
Lori: [OS] [AF] if there [UT]
Fred: [OS] [AF] the cash [UT]
Lori: [OS] [AF] was someone [UT]
Fred: [OS] [AF] Yes once we get the cash we can then say as a group, the exec or the [First Program] award team will say, okay let's target sort of certain areas. [UT]
Mike: [OS] For example Joe Blow he's outsourcing his unit up to [IS] in Hong Kong to write them up for him [UT] (Doc 7-1, Line 488-496).

The member who assumed the forceful hijacker role did take over the leadership of the focal group but did not facilitate group goal attainment but sought to meet the individual need of the hijacker, Ann. For Ann to achieve her individual need, the

forceful hijacker led a resistance to the group, adapting its dynamics to the changes it incurred from within its contextualised environment—adaptations that were perceived as leading to a change in the group’s fundamental identity, resulting in a shift in its behavioural equilibrium state. The resistance did not result in the forceful hijacker meeting her individual need but did cause the group to become dysfunctional and less able to attain group goals, placing the group’s viability and integrity in doubt.

Factionalisation dynamic. The focal group experienced a leadership dynamic conflict that occurred when dealing with an uncommonly occurring atypical problem that took 12 months to resolve (see Figure 4.14). The instance of factionalisation is represented by the descending spiral that flows from left to right starting with the need to attain a new group goal that required a shift in the group’s identity and functional integrity, through to eventual goal attainment.

The group’s initial and subsequent goal(s) are displayed in black font, with leadership dynamics that emerged in blue font. Changes to the group’s contextualised environment in the form of impinging external events appear in brown font. The focal group’s response to initial and subsequent leadership dynamics are displayed in red font. The preceding instance of factionalisation was demonstrated when the focal group experienced critical fluctuations that led to bifurcation when they incurred the forceful hijacking dynamic, (recall Section Forceful hijacking, p. 259).

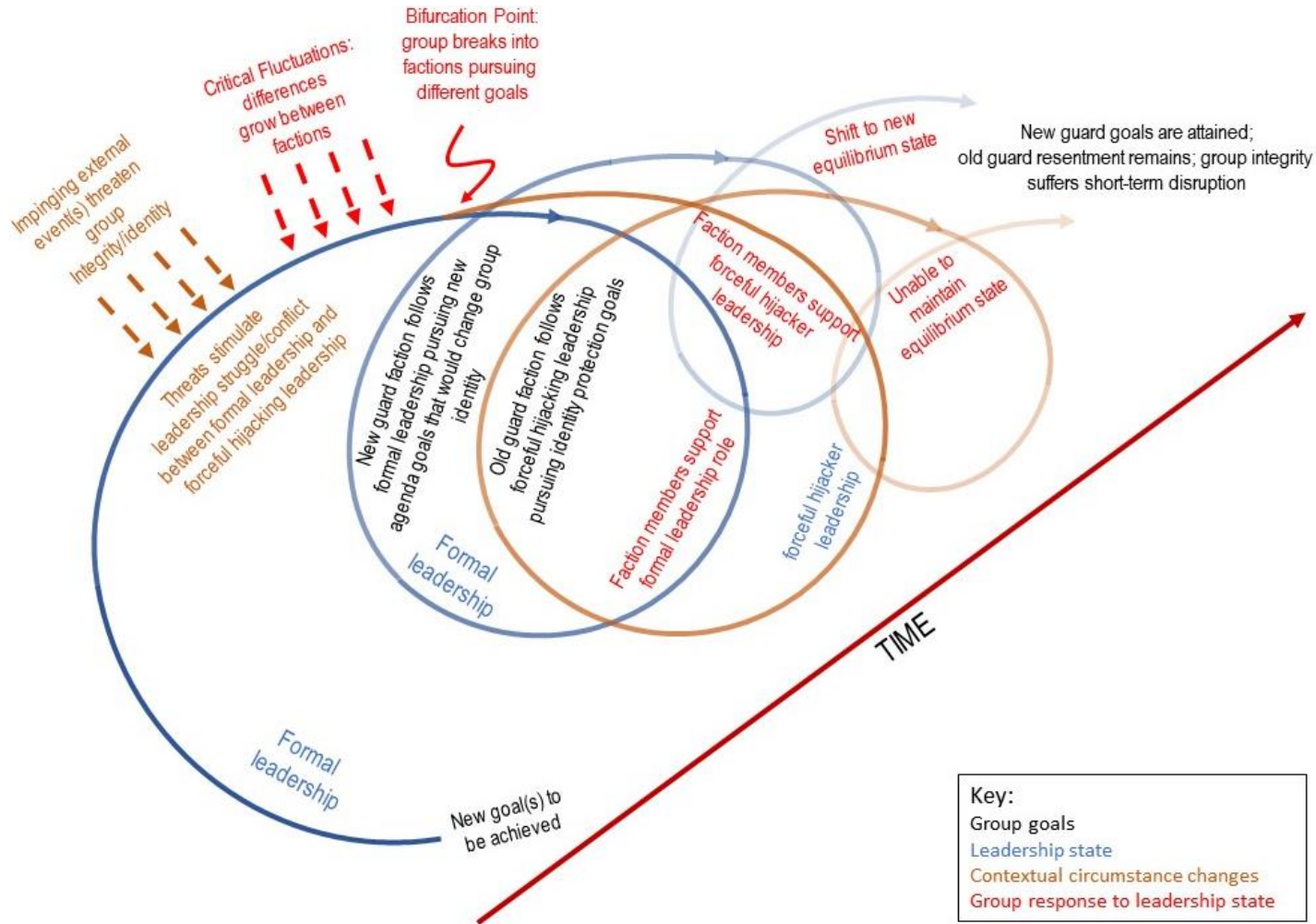
The evolution of trajectory of group discussion/deliberation occurs over time, which encompasses emergent conflicting goals and individual needs. The conflict centres around one or more impinging external events; some of which were strong enough to threaten to shift group identity and functional integrity to a new state. The threat of this shift stimulated a leadership tension between formal leadership (new guard) and forceful hijacking leadership (old guard). The confluence of the above struggle led to the self-organisation and emergence of the forceful hijacker dynamic. As Ann marshalled resistive forces against a proposed functional adaptation for the focal group to support the [New Dual Degree] award. The emergence of the forceful hijacker dynamic did not follow Guastello’s (2007) theorem of being trait based.

The emergence of this dynamic was based on the individual needs of the forceful hijacker; needs that were based on the forceful hijacker's social identity as a member of the focal group that provided social and emotional value (E. Smith et al., 2007).

The old guard fell into the *base-rate fallacy* as they were processing information when they ignored base-rate information (actual probabilities) for separate and distinct information to process that supported their position (Kahneman & Tversky, 1973). The actual probabilities of the information provided was the provision of increased opportunities for the focal group to offer their teaching resources by supporting the [New Dual Degree] award. The increased opportunity was timely due to an expected downturn in student enrolment in 2015 due to an oversupply of students with a [First Program] award (Weldon, 2015). The information that the old guard placed on base-rate fallacy was ranked or weight based upon a perceived degree of relevance supporting the argument (Bar-Hillel, 1980). The forceful hijacker was presenting information on how determinant the focal group's adaptation to support the [New Dual Degree] award would be to their identity and traditional functional integrity. The change group argued against the base-rate information being presented (Argote et al., 1990), identifying that information as leading to an ineffective group decision-making process (Nagao et al., 1985; Tindale, 1989).

As tensions grew between the old (minority) and new guard (majority) it reached a point where the dynamic of polarisation emerged. The minority's opposition diminished after the group experienced a shift in their behavioural equilibrium state but was not extinguished. The group assumed a state of self-organised equilibrium where the old guard led by the forceful hijacker formed into an isolation cluster (Latane et al., 1994). The clustering process allowed the old guard to continue their rejection of the new guard's support of the shift in the focal group's behavioural equilibrium state, thus leading to a group structure based on factionalisation. This was a structure where the old guard maintained their strong opposing opinion(s).

Figure 4.14. Factionalisation Dynamic

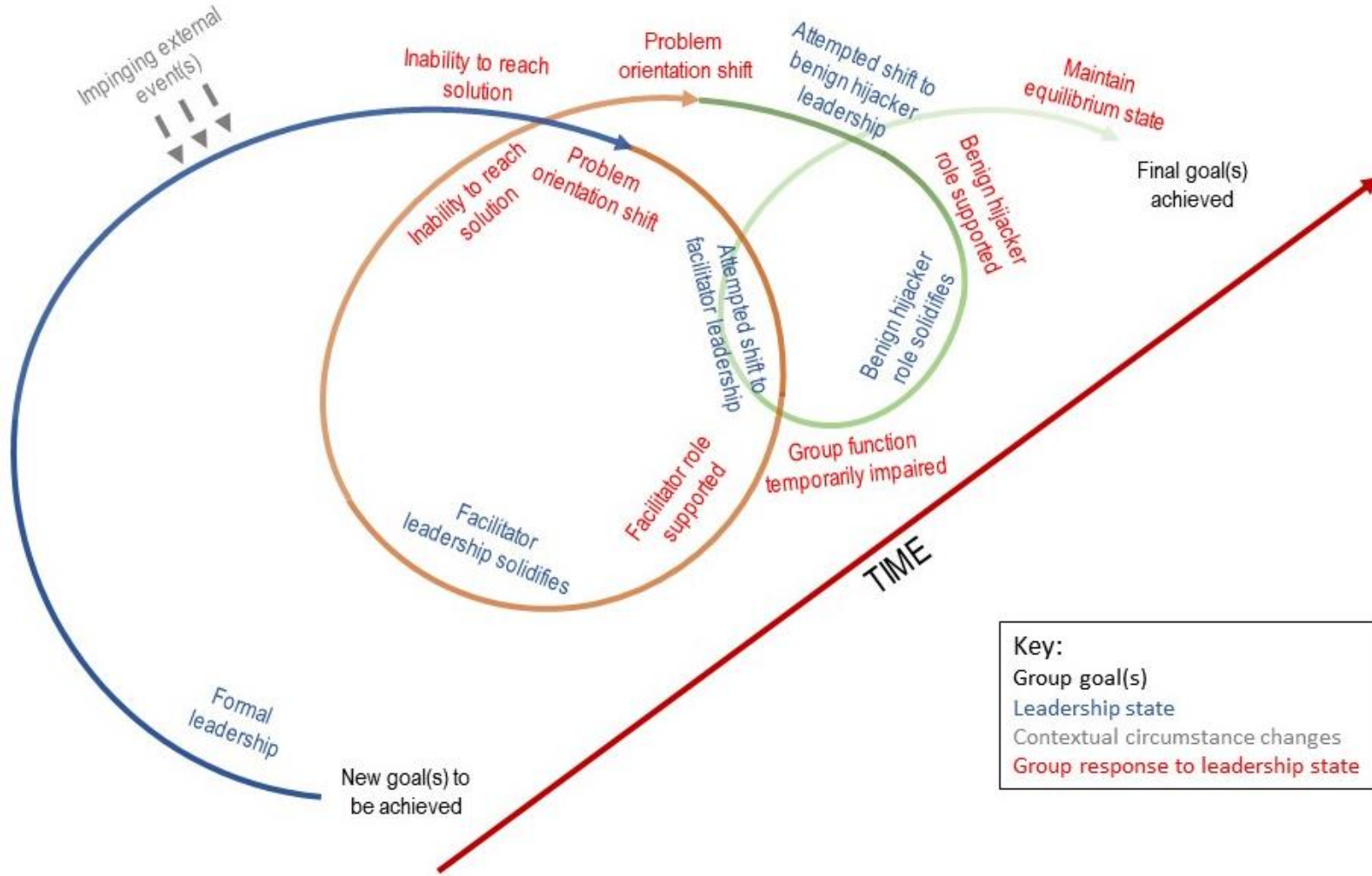


The old guard was holding out hope that in the near future that those in the new guard who were less committed to the behavioural shift and would join their resistance (Latane et al., 1994). Leading to a rejection of the focal group supporting the [New Dual Degree] award. Within this new structure both the forceful hijacker and the formal leader continued to receive support from their subgroups within the focal group.

The support provided for the two leaders was in the form of dyads and triads formation as members became more aware of the value inclusion provided. Members became more aware that their involvement with the issue of the [New Dual Degree] award offered them value towards meeting their individual needs through the increased influence of dyads and triads (Hackman & Morris, 1975). The influence came in the form of social influence where persuasion, was applied to influence other members thoughts and actions with the expectation of conformity, and obedience (W. Mason et al., 2007). Those of the old guard sought to fulfil individual needs where those of the new guard were seeking to attain a group and organisational goal.

Cascade dynamic. The focal group experienced a series of leadership dynamics that occurred in succession, forming a cascade dynamic. The dynamic emerged in response to an uncommon typical problem that was difficult to resolve through consensus (see Figure 4.15). The cascade occurred through numerous leadership dynamics represented by the spiral that flows through time from left to right starting with the onset of a problem, through to its resolution. The initial and final group goals are displayed in black font. Leadership dynamics that appear throughout the cascade are in blue font. Changes to the focal group's contextualised environment (impinging external events) appear in grey font, with the response to changing leadership dynamics in red font. The evolutionary trajectory of group discussion/deliberation occurs over time, which may include morphing of group goals. Morphing was the result of negotiation at the intragroup dynamical layer as members aggregated individual preferences into group preferences as they sought the best response for the focal group towards achieving a goal (Bonner et al., 2011).

Figure 4.15. Cascading Dynamic



Inability to attain this type of response created the need for the group to re-orientate their approach to the solution and experience a leadership dynamic shift to reach a consensus solution and obtain a group goal. To reach a consensus solution the informal group leader Ann applied normative influence through coercive power (Festinger et al., 1963) and referent power (Hogg & Turner, 1987). Application of this influence was to maintain the stability of interplay at the intragroup dynamics layer by reaching a consensus solution when dealing with a group resource or information problem while maintaining their behavioural equilibrium state and identity.

The effect of impinging external events was not strong enough to threaten group identity and integrity, due to the state of the focal group's contextual circumstances when dealing with uncommon typical problem. The contextual circumstances of these impinging external events led to the emergence of the facilitator and benign hijacker dynamic. When these dynamics were experienced the focal group tacitly accepted the members who were in these roles and eventually incurred an improvement in group function. The positive effects of these informal leadership dynamics allowed the focal group to experience them in a cascade form as they sought a solution.

The focal group was a self-managed group, responsible for monitoring, influencing, and coordinating their work (Barker, 1993; Manz, 1992; Tompkins & Cheney, 1985). Being able to determine its output level, what it wants to create, and by which means it would create that output (S. Cohen et al., 1996; Dunphy & Bryant, 1996; Manz & Sims, 1987). Ultimately the focal group placed value on their decision-making processes that led to goal attainment. Therefore the focal group had decision latitude (Langfred, 2000) and control over task completion (Hacker, 1985; Volpert, 1990) that involved the group as a whole and did not rely solely on individual members. Being a self-managed group gave the focal group the functional freedom to find solutions to their problems through any means they deemed suitable making them conducive to experiencing a cascade dynamic.

When impinging external events were strong enough to threaten group identity and integrity the forceful leadership dynamic emerged, causing focal group dysfunction

and eventual bifurcation. Within this dysfunction is a high level of conflict occurred especially relationship conflict that had negative effects on intragroup and extragroup dynamics (Amason, 1996; Jehn, 1995). Intragroup effects were seen through heightened members anxiety (Dijkstra, van Dierendonck, & Evers, 2005) caused by ego threats when central conflict issues have a strong self-concept (Baumeister, 1998).

The ego threat (Baumeister, 1998) can increase conflict making it more difficult to manage (De Dreu & van Knippenberg, 2005) causing an increased negative effect on intragroup dynamics through a loss in trust (Jehn, Greer, Levine, & Szulanski, 2008), and decreased member commitment (Bayazit & Mannix, 2003). Relationship conflict has negative effects on extragroup dynamics (De Wit et al., 2012) by reducing the level of collaborative problem solving (De Dreu, 2006) and the time spent in conflict decreases the time given to task completion (Evan, 1965). Further relationship conflict impairs the ability for extragroup dynamics to increase group creativity (Farh, Lee, & Farh, 2010) and performance (Brief & Weiss, 2002)

The confluence of evolutionary trajectory and decision-making process created the need for a shift in problem orientation to facilitate a consensus judgment. Lack of progress caused short-term tensions between leadership roles creating the need for the group to shift between those roles as they sought a consensus solution. The leadership dynamics that emerged were presumed to have the necessary traits to enable the group to be successful (Guastello, 2007).

A shift in leadership required group acceptance that was facilitated by an individual member supporting the shift. Once accepted the new leader would solidify their role as they attempted to move the focal group towards a consensus response. The shift from a formal leadership to a facilitator dynamic did not cause an upheaval in the group because this shift was immediately and tacitly accepted by the group. Moving from the facilitator to benign hijacker dynamic did cause the group to experience a period of temporary upheaval as they sought a consensus solution. A leadership shift may or may not be successful (figures show a progressive cascading of shifts) (recall Figure 4.14); if not successful, the leadership role currently in place

remains in place. The focal group would have accepted the current method of goal attainment as the best option for the group (Bonner et al., 2011).

In the following segment, the focal group is trying to adapt to an ongoing intragroup system shock, with the need to immediately cover one of an ex-member's (Liz) units (344) across three consecutive trimesters. The focal group initially experienced the formal leadership dynamic with Lori, followed by Ann in the facilitator role, and culminating with Betty as a benign hijacker. Lori as the focal group's formal leader explained the immediate need of offering coverage for the 344-unit over three consecutive trimesters, including the university's offer of incentives (AFP money) (Doc 3-1, Line 780-789).

Lori: [AF] [OS] and I said, we already have 344, and it wasn't on Fred's list. We already have that, I said, but you haven't got 344 there. We already have one in third trimester, but I've been told, 310, and I've said, well the conditions are, I said, there's no one on our team who can coordinate it because we're all teaching, you know, we can't be up made to, you know, we all have full loads in T1, T2. Fred's adamant and need be has to be followed. I said that means you have to employ someone. He said, in casual? I said, no casual won't be allowed to coordinate. It has to you have to which is the University has to somehow improve the coordinator. I said the coordination of 344 is replacing Liz. I said this will be an extra, I said, you know, so that's the condition. I didn't put it I'm a bit I've spoken to him twice now, and I'm going to send him an email now and put it in writing. I said I was going to talk to you today, but there is some of the other schools are keen to do this; maybe it's just money minded with us. If someone on this team wants to do this, then this is what everyone knows. They are offering incentives, which apparently have to come out of school's budget it's like [UT]

Ann: [OS] We don't have the money [UT]

Lori: [AF] [OS] So the school's been told [Laughing] to offer these incentives [UT]

Jean: [OS] To teach three trimesters?

Ann: [OS] [AF] and then next year only teach one.

Lori: [AF] [OS] Yes [UT]

Group: [SB] [IS]

Lori: [AF] paid for your teaching and it goes into your APF [UT]

Jean: [OS] Same as they did only cheaper

Lori: [AF] [OS] So that's got to come out of school budget, or you can actually take it as load off next year's load, but it means for some well depending on what trimester you're teaching next year, you might teach five trimesters in a row. T1, T2, T3 next year then T1, T2. That would be exhausting, but it's open if someone wants to do that. Have a think, and

I'll need to email him tomorrow, sort of Fred wasn't [Laughing] with deadlines, but it's all happening (Doc 3-1, Line 780-789).

Ann assumed the role of a facilitator, providing the focal group with unshared information regarding the role of the university behind the need to provide immediate coverage for the 344 unit over three consecutive trimesters (Doc 3-1, Line 790-822).

Ann: My understanding I had a conversation with Tony my understanding of why it's 310 was put up, is because the other part of [External Service Provider] being bigger than [University] and telling it what to do. Is that our [Bachelor of Teaching] [First Program] [UT]

Group: [SB] [IS]

Ann: [AF] will have admission in Trimester 3, and if we admit new people, if they do nothing else they have to do 310. There will be no admission for the [Bachelor of Education], but there will be for the [Bachelor of Teaching] [UT]

Lori: [OS] It will sort of have to put that on [UT]

Ann: [AF] [OS] and how they can run a 12-month lead-time [UT]

Lori: [OS] [AF] For the next year

Ann: [AF] [OS] for unit course changes like we have to do for everything else.

Lori: [GD] This is going to be a nightmare for [UT]

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Lori: So, if anyone wants to volunteer for it, just let me know

Betty: [GD] What do you feel politically about what we should do I mean if you are putting this out as a strategy for [First Program]. I mean, what choices do we have?

Lori: Well the choice is, as I've said, we've been saying no [UT]

Ann: [OS] No one to teach it.

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Jean: [OS] Because they'll just get someone else. They can get a contract person to call out.

Lori: [OS] [AF] And I said to Fred, that will be difficult and I'll have to put it in the email when we have difficulty in finding someone to take the 344 unit I'm really worried because Karen has a to coordinate now 65 students in that [UT]

Ann: [OS] And Lori, I think the other thing

Lori: [AF] [OS] It will be difficult for us to find someone will be difficult if they'd made this decision, and I don't think it should be my job as team leader to find someone to fill a position the University has decided will be offered.

Ann: [GD] The other thing I'd suggest you put in [UT]

Group: [SB] [IS]

Ann: [AF] [OS] to Fred and CC it to the whole team so that we know what you've said and Fred knows that all of us know what you've said [UT] (Doc 3-1, Line 780-822).

To solve the need for coverage, Betty assumed the role of a benign hijacker, taking over the focal group's leadership by offering a solution. She discussed the possibility of teaching 344 over three consecutive trimesters if she could get a year off to become an artist in residence in England (Doc 3-1, Line 853-870).

Betty: I'm wondering if they would do a deal with me. In 2013, I really want to go on another artist in residence thing. If I were to teach that for my trimester would, they give me time to go and do an artist in residence thing?

Lori: [GD] Well T 2 was [UT]

Jean: [OS] Is it T2?

Betty: [GD] I don't know, you know I don't know, [UT]

Ann: [OS] pick a date because

Lori: [GD] If it is enough you can the next year take all your load in one trimester?

Betty: [GD] Yeah.

Lori: [GD] You can say, well I'm going to take whatever you'd have to load, and significant load so that you didn't have too much you'd have a trimester without teaching and you'd arrange that what you do with that trimester would have to be made with Fred.

Betty: [GD] Yeah.

Jean: [GD] So effectively, that would mean that of the six trimesters over two years we're all going to be teaching four. you'll just teach four in a row, or that's what you're saying [UT]

Group: [OS] [IS]

Jean: [AF] [OS] or three and then [UT]

Group: [OS] [IS]

Jean: [AF][OS] two breaks and then one.

Betty: [GD] But that's no good to me, you know if I'm not allowed to go and do my artist in residence [UT]

Group: [OS] [IS]

Betty: [AF][OS] thing you know.

Ann: [GD] Make that your bottom line.

Betty: [GD] That would be my bottom line (Doc 3-1, Line 853-870).

Betty was attempting to fulfil an individual need of spending a year as an artist in residence in England while assisting with focal group goal attainment: the provision of 344 across three consecutive trimesters. The group did incur some upheaval in function due to Betty's novel solution and with the group not fully understanding

how Betty' solution would work and what effect it may have on the group's identity. The group experienced a cascading pattern of adaptations to its leadership dynamics (Formal → Facilitator → Benign-hijacking) within the same discussion segment. The presence of multiple leadership dynamics in succession occurred when the group had to adapt to a single change in its contextual circumstances. The group experienced multiple leadership dynamics in succession when the system shock type did not threaten the group's fundamental identity lest forceful hijacking be activated and the factionalisation dynamic energised, when the group was confronted by a difficult and uncommonly occurring typical problem.

4.9. Conclusion

The data analysis demonstrated that multiple factors influenced the leadership dynamics experienced by the focal group over a 12-month period. The focal group's historical context, professional status, member needs, group goals and ongoing contextual circumstances shaped and formed their fundamental identity and state of behavioural equilibrium. These factors guided the group's interplay both within and across their contextualised environment, over time. As the group incurred typical or atypical changes from within its contextual circumstances, they experienced different leadership dynamics to assist with goal attainment and meeting member needs. The emergence of those dynamics was preceded by the application of goal orientated dynamics (JI, OS, GD) that occurred during interplay dominated by free discussion.

The adaptation of the group's leadership dynamics was influenced by member perception of the group's pathway towards goal attainment as being either consistent (leading to facilitation or benign hijacking) or contrary (leading to forceful hijacking) to their individually held views about the group's fundamental identity and purpose. The group experienced either a gapless discussion, over-speak or jump-in goal orientated dynamic prior to the emergence of the facilitator dynamic. The goal orientated dynamic jump-in was incurred by the focal group prior to the emergence of the benign or forceful hijacker dynamics. The findings also revealed that, on occasion, the group adapted to a single change in its contextual circumstances by experiencing the factionalisation and cascade dynamics.

Experiencing factionalisation dynamic was preceded by the focal group incurring the forceful hijacking leadership dynamic, which led the group to dysfunction, critical fluctuations, and eventual bifurcation. The cascade dynamic allowed the group to seek a solution to an uncommon typical problem that was difficult to resolve through consensus.

The emergence of leadership dynamics was idiosyncratic in nature due to the focal group membership being divided along old and new guard boundary lines. The old guard had forged their position during the creation of the focal group's historical context allowing their positions to become entrenched in path dependency. In particular, the informal leader Ann had no divisible line between her individual needs and the group's goals to the point where she would rather push the group to dysfunction than be unable to meet an individual need, i.e. forceful hijacking. The new guard sought adaptive leadership that would lead the group to new ideas, innovation, adaptability and learning, facilitating the growth and development of the focal group, i.e. facilitation, benign hijacking.

Dynamics emerged when the focal group had a goal to attain or an individual need to be met. The dynamics that assisted with goal attainment occurred when the focal group had to adapt to a typical change from within its contextual circumstances. These dynamics were tacitly accepted by the group, void of conflict while enabling the maintenance of their identity and behavioural equilibrium state. The focal group in this instance functioned as a self-managed group, self-organising its behaviours effectively towards goal attainment.

When the group had to adapt to an atypical change, it experienced the forceful hijacker dynamic, where the group's leadership was forcefully assumed, and the adaptation to change was actively resisted, causing conflict between those for and against adaptation. The conflict resulted in a sharp decline in group function, with the membership splintering and the pathway to the resolution being lost. The focal group lost its structural cohesion and became driven by the needs of the forceful hijacker that could not be met leading to bifurcation and a shift in its behavioural equilibrium state. In the next chapter, I will discuss the key findings from the study

as well as theoretical, methodological implications and potential future research directions.

CHAPTER 5

CONCLUSIONS AND IMPLICATIONS

“The needs of the many outweigh the needs of the few or the one.”
(Littmann, 2016)

5.1. Introduction

In chapter 1 of the thesis, I introduced this research and located the research problem within the extant literature. The introduction outlined the purpose, goals, objectives, and methods by which those goals and objectives would be achieved. The thesis outline described how each chapter would facilitate an understanding of my research process, which employed a constructivist epistemology, an interpretivist theoretical perspective, a grounded theory methodology, and multimethod research.

In chapter 2, I presented a critical review of the extant literature concerning the historical and current position of group research through the lens of social psychology, sociology, and complexity. Insight was offered into how social psychology and sociology have provided a constrained view of group behaviour that is discipline specific. I argued that the pervasive focus in the literature has been rooted in finding the causal factors that underpin group behaviour, using a positivist epistemology. Further, I argued that when group behaviour is studied through social psychology or sociology with a positivist epistemology, the researcher is not seeking a holistic understanding of a naturalistic group where its dynamics emerge over time.

I argued that using the concept of complex dynamic adaptive systems offered a holistic understanding that is based on behaviours that occur from the interplay within and between a group and its changing contextual circumstances, where recursive behaviours self-organise over time and emerge as group dynamics. I contest that these dynamics are best understood using a CAS approach to provide me with the best opportunity to fill an identified research gap. A gap in past research was caused by a group’s contextualised environment being induced and controlled, resulting in interplay that produced artificial behavioural patterns that

reflected only one point in time (McGrath et al., 2000). The behavioural patterns of a naturalistic group are demonstrated over time as they interact with an unconstrained contextualised environment (Arrow et al., 2000).

In chapter 3, I outlined my researcher positioning, describing the methodologies used to gain an understanding a group's emergent dynamics. I explained how I took a relativist ontological perspective that informed my constructivist epistemology. I argued that group behaviour could not be fully understood solely through the lens of psychology or sociology, what was required was an ability to unpack the multiple levels of interacting contextualised environments to gain insight into that state of interplay. I argued that to conceptualise this dense interplay, the use of complex adaptive systems provided that required insight.

To unfold a group's behaviour, I applied Charmaz's (2006) CGT methodology, gathering data through a multimethod research strategy of participant observation, maintenance of field notes, one-on-one semi-structured interviews, and a review of the group's historical documents. The CGT approach provided me with insight into the origin, development, and expression of a group's emerging dynamics as behaviours. The origins and development of group behavioural patterns were revealed through the one-on-one semi-structured interviews and review of the group's historical documents. Insight into the expression of those behaviours was gained through the participant observations of 12 monthly group meetings and the concurrent maintenance of field notes.

In chapter 4 I analysed and explained my data, resulting in the development of theoretical propositions. The analysis began with revealing the focal group's historical context based on two perspectives: historical documents and from members present during the group's inception. Insight into the focal group's dynamics was given by gaining insight into the behavioural patterns demonstrated during group interplay as they adapted to changes in their contextual circumstances over a 12-month period.

My analysis of the data started with a review of my transcribed data and the application of pre-coding to give my data an added dimension. I followed this with the use of Cooksey's (2001) CSDI, which enabled me to organise the data for initial

MAXQDA 11 Plus coding. The analysis progressed to finer-grained coding, that enabled not only the focal group's leadership dynamics to emerge but revealed the goal-orientated dynamics of gapless discussion, jump-in, and over-speak. The findings revealed how group identity coalesces and adapts to changing contextual circumstances (serving as one key anchor point or 'attractor') over the course of a group's development. When a group experiences path dependency, it is under the influence of that attractor that became a powerful force for resistance to change (forceful hijacker) by a member (Ann) that was deeply instrumental in all of the focal group's activities from the very beginning and throughout the formation of their fundamental identity and purpose.

In this final chapter (Chapter 5), I summarise the previous four chapters and accomplish five objectives. First, I position my emergent theories within the relevant extant literature. Second, I demonstrate how my emergent theories informed the current state of group research. Third, I provide the reader with the practical application of my research by adding to the current practice of organisational behaviour policy and practice. Fourth, I outline the limitations of this research, examining the methodology and emergent theory perspectives. Lastly, I provide the reader with directions for future research that build upon the results of this study.

The emergent theories discovered about the focal group behaviours go beyond the scope of the extant literature reviewed in Chapter 2. The focal group experienced adaptations to their leadership dynamics when a member perceived the path to a solution of a typical or atypical problem as being either consistent (leading to facilitation or benign hijacking) or contrary (leading to forceful hijacking) to their individually held views about the focal group's fundamental identity and purpose. Through the application of CGT, it was revealed that groups are complex adaptive systems where their dynamics adapt to changes from within and across its contextualised environment over time.

5.2. Conclusions Question 1

1. What is the role of the focal group's initial and future embedded contexts in the development of a group's dynamics?

The focal group incurred changes in their initial contextual circumstances that required adaptation and gave direction for the development of their historical context. One of the first changes encountered was the presence of one member who provided the focal group with strong academic leadership and guidance. The change in contextual circumstances caused the focal group, where the majority of the membership held little to no academic experience, to adapt its dynamics. The adaptation was demonstrated by behaving in a manner that the formal group leader, who had initiated the change, expected, meeting that member's individual need. The need for the focal group maintained this desired identity the focal group encountered negative feedback loops that resisted the forces of change (K. Lewin, 1951).

The formal leader's professional status was elevated, with the inexperienced majority supporting group goal attainment versus meeting their individual needs due to social identity theory. The inexperienced majority began to identify more with the focal group and encountered a level of status through group membership (Hogg, 2005; Phinney & Ong, 2007). The focal group's heightened level of status created opportunities for increases in group cohesion caused by having shared emotional reactions to changes they encountered in their contextual circumstances (Evans & Dion, 2012; Stokes, 1983). As the focal group increased its cohesion, they created the initial trajectory for their behavioural equilibrium state and experienced path dependency, which further solidified their identity and purpose. The formal group leader experienced a heightened level of professional status within the focal group while maintaining a strong leadership role towards group and award development.

The focal group did experience a change in its contextual circumstances, where the formal leader could not secure a pathway towards a resolution that would ensure the maintenance of their fundamental identity. Experiencing positive feedback loops that overwhelmed the focal group's ability to resist change, it encountered a bifurcation, resulting in a shift to its fundamental identity and behavioural equilibrium state. The focal group was no longer able to experience path dependency that would allow it to maintain its behavioural state trajectory. The

focal group's ability to function declined as they sought to understand their new identity and demonstrate those behaviours that reflected their new dynamical state. The focal group's identity is distinct from the dynamics that it feeds into (as an attractor, from a complex systems perspective) to stimulate resistance to change. Identity is, by its very nature, resistant to change.

When the focal group reformed, one of the adaptations made by the focal group was for the members to focus on meeting their individual needs versus group goal attainment as they became isolationists. The formal leader became aware of how fragile the focal group's structure was and its inability to meet her individual need of maintaining the focal group's identity. She had transposed the maintenance of the focal group's fundamental identity as a direct reflection of the professional status she was conveyed both within and externally to the focal group, a key individual need. She applied an isolationist perspective because she came to realise that only she alone could be trusted with the maintenance of the focal group's fundamental identity.

As the focal group experienced further changes in its contextual circumstances, the formal leader sought pathways to a solution that met her individual needs while ensuring the focal group resisted identity change and only encountered path dependency. The maintenance of the focal group's identity and purpose became the hallmark that defined their historical context—a context formed during the focal group's inception by the initial formal group leader and maintained by that member in response to future changes from within its contextual circumstances using negative feedback loops.

The focal group experienced various types of adaptation to its dynamics, as they responded to typical and atypical changes (system shocks) from within its contextualised environment. When a shock threatened to change the focal group's identity, they experienced positive feedback loops, where leadership dynamics shifted (forceful hijacking); when the leadership was hijacked, the new leader attempted to stimulate a negative feedback loop that kept the focal group focused on its fundamental identity and purpose. Over time, group dynamics emerged that were more and more intertwined towards the maintenance of their identity, making

the focal group's ability to change increasingly difficult. The focal group was self-managed, a key enabling factor for this behavioural state that allowed them to experience dynamics that were insular in focus and not equally supportive of university goal attainment. Being insular left the focal group ill-equipped dynamically to actively interact with the university, which explains why the greatest system shocks they incurred were extra-group system shocks (recall Sections extra-group/intra-organisational, p. 198, 206, and extra-group, p. 214).

When the focal group was faced with completing normal day-to-day business, the focal group experienced the formal leadership dynamic—a dynamic that was institutionally mandated to resolve day-to-day issues that did not represent a change in the focal group's contextual circumstances. The focal group immediately and tacitly accepted the member in this role, in which they were conferred a level of professional status by the focal group and the university. Group function remained unchanged and was void of conflict, with emotions being neutral and the outcome maintained the focal group's identity and behavioural equilibrium state.

The path chosen by the focal group to reconcile day-to-day issues was a combination of explicit and implicit normative behaviour in an effort to attain group goals and meet individual needs. Implicit behaviour was demonstrated when the focal group encountered the dynamics of open discussion format, jump-ins, over-speaks and gapless discussions. Experiencing these goal-orientated dynamics influenced the direction of the focal group's discussion. The focal group's ability to reach a consensus decision from a free discussion format could only occur if the focal group had a long history of experiencing these types of behaviours that had led to them to become implicit normative behaviour. The only explicit normative behaviour was the use of a predetermined meeting agenda.

Incurring a typical change in the focal group's contextual circumstances in the form of an intragroup system shock typically did not threaten their identity, with the focal group responding with implicit and explicit normative behaviours (recall Section intragroup system shock, p. 194). The implicit behaviours experienced were the behaviours that represented the goal-orientated dynamics of open discussion format, over-speaks, and gapless discussions that facilitated the efficient

reconciliation of the system shock. The goal of these behaviours was to provide the focal group with negative feedback loops to ensure maintenance of the focal group's identity. The focal group tacitly and immediately accepted the focal group's path to reconciliation, without heightened emotions or conflict. An immediate improvement in group function resulted with the focal group maintaining its identity, which provided a consistent behavioural equilibrium state.

When the focal group had to adapt to an atypical change in their contextual circumstances in the form of an extra-group/intra-organisational system shock that did not threaten its identity, they demonstrated more implicit versus explicit normative behaviours (recall Section extra-group/intra-organisational system shock, p. 199, 206). These behaviours were representative of the goal-orientated dynamics of free discussion format and the frequent use of jump-ins, over-speaks, and gapless discussions. The frequency of over-speaks and gapless discussions did increase compared to what the focal group demonstrated when they experienced an intragroup system shock. These goal-orientated dynamics represented different trajectories towards system shock adaptation and were the attempts to have the focal group experience negative feedback loops to resist change.

The proposed adaptations were facilitated by an informal leader and caused a shift in the focal group's orientation towards issue resolution that resulted in a temporary upheaval in group function. The upheaval was the result of the pathway towards resolution being outside how the focal group traditionally approached similar changes in its contextual circumstances. The examination of new paths towards resolution was the result of the focal group experiencing positive feedback loops in an attempt to overcome the focal group's resistance to change and try something new. It was not until the focal group recognised that the path towards resolution being proposed did not represent a change in their identity and purpose that they provided consensus support. Over this period of recognition, the focal group's potential for conflict was unlikely, but emotions were raised as members were concerned about possible threats to group identity, delaying the focal group's tacit acceptance of the path towards resolution. Once the resolution was accepted,

the focal group did experience an improvement in function that was in line with their identity and purpose.

When the focal group experienced an atypical change from within its contextualised environment in the form of an extra-organisational system shock, their identity and purpose were threatened (recall Section extra-organisational system shock, p. 214). The focal group was experiencing positive feedback loops that some in the focal group perceived as being able to overwhelm the focal group's ability to resist with the proposed pathway towards resolution—a resolution that was perceived as threatening the focal group's identity. The member(s) that perceived this issue was to resist the proposed resolution, causing the focal group to experience negative feedback loops.

The discussion format was open, with a high frequency of jump-ins, where emotion was raised, causing the discussion to become hyper-focused on those members involved in an open conflict over the issue before the focal group. The goal of this conflict was to gain leadership control of the focal group and have the pathway towards resolution be either in line with the focal group's identity or cause a change to that identity. As this conflict raged between resistive and change forces, it was not only the focal group's identity that was in play; members had individual needs tied into the maintenance of the focal group's fundamental identity. With individual needs being placed in jeopardy, the conflict heightened, with the pathway to resolution becoming elusive, placing the focal group into a state of chaos and instability. The focal group encountered bifurcation when it was unable to function and experienced a level of positive feedback loops (Agency) (Shapiro, 2005) that overwhelmed the resistive forces (K. Lewin, 1951), causing the focal group's identity and purpose to change.

With the consideration of a more holistic view of a group's embedded contexts, a greater understanding is afforded to answer the questions of how and why a group's dynamics, norms, structure, and values took their initial form (Dovidio, 2013). I concur with Cooksey's (2001) view of an individual's embedded contexts that explores the cognitive aspects of individually embedded contexts with the addition of "intrapersonal needs and desires" (Cooksey, 2001, p. 89). The findings support

the expansion of individual contexts to include cognitive traits, and the influence member needs had on the development of the focal group's dynamics. The member needs displayed by informal group leaders was a consistent theme throughout this study and played a main role towards the development and implementation of facilitator and benign and forceful hijacking. The influence of meeting member needs was not only present during the participant observation sessions but had identifiable roots within the focal group's historical context.

The findings revealed that gaining an understanding of member needs was central to an understanding of how the focal group interacted with its contextualised environment from inception and into the future. Member needs are directly related to the level of rewardingness that a member receives that must be proportional to the level of rewardingness they seek from the focal group (Moreland & Levine, 2004). When a member fails to receive their required level of rewardingness, they will seek to correct that shortfall to the point of forsaking group goal attainment, placing in jeopardy two of the three functions that all groups must attain to maintain their existence: goal attainment, meeting member needs to maintain group viability, and integrity (McGrath et al., 2000).

5.3. Conclusions Question 2

2. What adaptations in a group's dynamics are made over time and in response to changing contextual events?

When the focal group did not experience a change from within its contextualised environment, completing day-to-day tasks, they experienced the formal group leadership dynamic (recall Section Formal Leader, p. 247). Completing this type of task allowed the focal group to experience path dependency, when the available choices to solve these tasks were selected from a smooth fitness landscape of known strategic options (Levinthal, 1997; Vidgen & Bull, 2011)—a landscape where the differentiation between task outcomes was minimal and ensured the maintenance of the focal group's identity.

The system shocks encountered by the focal group led to adaptations of their leadership dynamics in the form of a facilitator and a benign or forceful hijacker. A

member assumed one of these informal leadership roles to lead the focal group towards path dependency, goal attainment, meeting individual needs, the maintenance of its fundamental identity, and purpose. The facilitator dynamic occurred when the focal group was required to adapt to a typical but infrequent change from within its contextual circumstances in the form of an intragroup system shock (recall Section Facilitator, p. 249).

Those members who became a facilitator perceived that the focal group required assistance with goal attainment through either communication or resource management. A facilitator typically had a level of professional seniority and expertise recognised by the focal group, which allowed them to seamlessly apply their innocuous expertise to assist with group goal attainment. The seamless application of their expertise did not require the focal group to significantly alter their function, requiring the focal group only to recognise the additional leadership guidance being provided by the facilitator towards goal attainment.

The lack of change in function demonstrated that the focal group was experiencing path dependency through the selection of a pathway towards a resolution that was dictated by their successful past. Experiencing path dependency enabled the focal group to follow an adaptation strategy that existed within a smooth fitness landscape and when implemented, did not threaten their identity. When the facilitator role was present, the focal group encountered negative feedback loops, an increase in resistive forces that were demonstrated through their behaviours to maintain group identity and behavioural equilibrium state.

The focal group also encountered the facilitator dynamic when it appeared to explicitly support group goal attainment while being truly being driven to meet an individual need (recall Section Dyads and Triads, p. 187). A member assumed this informal leadership role to meet an individual need over and above group goal attainment. However, this objective was not revealed until data gained through the one-on-one interviews were analysed. The focal group experienced the facilitator dynamic to meet multiple objectives, i.e. group goal attainment or meeting an individual need, as it incurred changes in its contextual circumstances. The facilitator dynamic has an increased probability of being experienced due to the number of

objectives that are being sought by either the focal group or a member as contextual circumstances change. The presence of the facilitator dynamic further underpins the complex nature of the emergence of group dynamics that are demonstrated through a group's behaviour.

The focal group had to adapt to changes from within its contextual circumstances that represented atypical changes they encountered, either a benign or forceful hijacker leadership dynamic (recall Sections Benign Hijacker, p. 255, Forceful Hijacker, p. 259). These dynamics were experienced when a member who held a level of professional status and seniority recognised by the focal group assumed an informal leadership role to find a resolution that represented path dependency. The path chosen would enable the focal group to adapt to the incurred change while maintaining their identity and purpose.

The focal group encountered the benign hijacker dynamic when a member proactively responded to the change in the focal group's contextual circumstances. The member felt compelled to offer a perceived ability they had that would assist with the resolution attainment in the form of communications or resource management. The change in the focal group's contextual circumstances was not perceived as a threat to their fundamental identity, as the focal group sought path dependency towards resolution. An upheaval in group function occurred as the route to resolution involved adaptation choices that existed within a rugged fitness landscape (Levinthal, 1997)—a landscape where the differentiation between strategic choices was under the tension of simultaneous positive and negative feedback loops, creating a vibration between resistive and change forces (K. Lewin, 1951). The vibration effect was negated by choosing a resolution that allowed the focal group to experience path dependency and a trajectory towards the maintenance of its behavioural equilibrium state while demonstrating attractor behaviours.

When the focal group had to adapt to an extra-organisational system shock, they encountered the forceful hijacker dynamic when the change in their contextual circumstances placed their identity in jeopardy. A member that became a forceful hijacker reactively identified the necessity to stop the focal group from following the

chosen path to adapt to an extra-organisational system shock that did not represent path dependency. The focal group encountered a series of negative feedback loops from the forceful hijacker in the attempt to counter the positive feedback loops that represented push towards adaptation. The effort to resist change elevated to create a heated conflict, causing group function to decline as the discussion narrowed its focus on those for or against adaptation while not examining routes to resolution. The possible strategies for resolution were found within the focal group's rugged landscape, offering only a marked change in their identity and purpose (Levinthal, 1997). The resistance to change was marked by the demonstration of attractor behaviours in an attempt to have the focal group experience path dependency. When the resistive efforts failed, and the positive feedback loops of change prevailed, the focal group incurred bifurcation and experienced a new behavioural equilibrium-state trajectory and a changed identity.

The findings reveal a causal relationship between a change in a group's contextual circumstances and dynamic adaptations encountered. When the focal group lost a group member, an intragroup system shock, they encountered a consecutive series of different dynamic adaptations, called the 'cascade dynamic' (recall Section Cascade Dynamic, p. 271). This dynamic emerged as successive leadership dynamics (Formal → Facilitator → Benign-hijacking) were experienced by the focal group as they attempted to reach a consensus solution to a problem that proved difficult to resolve.

When the focal group encounter a change in their contextual circumstances that threatened their identity and functional integrity they experienced the factionalisation dynamic. This dynamic, that was initiated when a member of the old guard perceived and reacted to a change in the focal group's contextualised circumstances that were being championed by the new guard. A member of the old guard assumed the role of a forceful hijacker that led to critical fluctuations and eventual bifurcation leaving the focal group in a short term dysfunctional state and incurring long-term ramifications. The dynamic adaptations encountered were dependent upon differing individual contextual circumstances, where members perceived the need to assist with group goal attainment, meet an individual need,

or seek both simultaneously. Those members who assumed these leadership roles sought solutions that would allow the focal group to experience path dependency and the maintenance of the focal group's identity.

Adaptation(s) to the changes across and within a group's contextual environment was not an absolute but conditional on the focal group's structure, specifically the roles played by the members and the focal group's norms. When a group creates a structure that is resistant to adaptations, this inhibits a group's ability to attain organisational goals, meet individual needs, and adapt to change (Kozlowski & Bell, 2003). A group's resistance was evidence of their decision-making ability where members assume informal leadership roles and applied decision bias that took the form of resistance to change (Hollenbeck, Colquitt, Ilgen, LePine, & Hedlund, 1998). The resistance was enhanced by a group populated with long-term members that enable them to exert coercive power, referent power, expert power, diffuse status, normative influence, and informational influence in the form of negative feedback loops. A group's resistance to change over time becomes an implicit set of behaviours related to dynamics that can eventually make a group unviable (Arrow et al., 2000).

The findings reveal that as the focal group matured, it followed a nonlinear developmental process, where change was a product of internal or external system shocks (Gersick, 1991; McGrath, 1991; Poole & Roth, 1989a, 1989b). The focal group's adaptation to these system shocks was either a temporary or permanent behavioural change. A permanent change caused an alteration in a group's developmental path (bifurcation) due to changes to their standing structures (Cissna, 1984; McCollom, 1995; McGrath & O'Connor, 1996). The focal group encountered negative feedback loops in its ongoing effort to maintain its identity, which kept the focal group on an evolutionary path towards adaptation as it incurred changes in its contextualised environment, where the focal group's initial dynamics were perceived as offering a stable and long-term structure that was to persevere (Braam & van den Besselaar, 2010; Gersick & Hackman, 1990).

As defined in chapter 1, group dynamics are the "influential actions, processes and changes that occur within and between groups over time" (Forsyth, 2010, p. 2). A

group displays its actions, processes, and changes in observable behaviours that have identifiable origins. The focal group displayed behaviours that evidenced the presence of emerging group dynamics that did have an identifiable origin as revealed by the focal group's historical context. The findings confirmed that a group's initial dynamics are informed by a member's expectations of how their group will behave during its inception through the lens of each member's embedded contexts (McGrath et al., 1996). Further, those initial expectations were influenced by expectation state theory (J. Berger et al., 1974) and social role theory (Eagly & Karau, 1991) where members use perceived status characteristics to develop a group's structure. I argue that these findings are useful, but they do not present a full story of the role played by a member's embedded contexts towards the development of a group's initial and future dynamics.

5.4. Implications for Broader Theorising

Organisational behaviour researchers have noted that we are in the midst of a new economic age that is highly complex and competitive on a global basis riding a wave of technological innovation (Hitt, 1998). An age where knowledge is a highly valued commodity as organisations strive to produce knowledge and innovation while being competitive (Blackman & Kennedy, 2009; Katzenbach & Smith, 2015; Uhl-Bien et al., 2007). Organisations are currently trying to manage the production of knowledge and innovation applying leadership practices to groups that fit on a continuum from a conventional to self-managed groups (Yeatts & Hyten, 1998).

The current shift is towards self-managed groups moving decision making power down an organisational hierarchy to the group level (Humphrey et al., 2007; Spear, 2004). The focal group was self-managed and existed within a highly contextualised environment, where interpersonal, intrapersonal, organisational, and societal nonlinear interplay occurred continuously, void of central control and reflective of their historical context. The product of that interplay is recursive behaviours that self-organise and emerged as leadership dynamics.

The focal group's dynamics are understood by unfolding the story of the behaviours they displayed in relation to their leadership dynamics. Where their behaviour was a

complex nonlinear interplay both within and between their contextualised environment over time (Marion & Uhl-Bien, 2011; Plowman & Duchon, 2008; Plowman et al., 2007). To gain an understanding of this complex interplay required an approach that was able to encapsulate all of the contextual elements that produced their behaviours. Complexity science “aims to explain how heterogeneous agents ‘self-organise’ to create a new structure in interactive systems, with the goal of understanding how such structures emerge and develop.” (Lichtenstein & McKelvey, 2011, p. 340). Complexity provided an avenue to gain an understanding of the focal group’s dynamics through CAS.

Applying CAS, I demonstrated that leadership dynamics are the emergent product of a complex interplay driven by a need for action and change where group interaction facilitates the self-organisation and emergence of new behaviours. CAS is composed of human cognition and sensemaking (Weick, 1995) with the addition of complexity in the form of self-organization, hierarchy, emergence, and learning (Gunderson & Holling, 2002). Within CAS are dynamic hierarchies composed of three dynamical layers (intragroup, extra-group and contextual) that are continually in a state of the interplay between the elements that exist within its contextualised environment. Control over that interplay is decentralised and highly dispersed, where system behaviour is a product of collaboration, and/or competition between a group and its contextualised environment (Waldrop, 1992b).

Leadership dynamics that emerged took on two forms formal and informal leadership. Formal leadership had a traditional bureaucratic hierarchy that ensured a group was aligned with organisational goals while under administrative control. Informal leadership was experienced when the focal group’s structure enabled adaptability, creative problem solving and learning resulting in adaptive outcomes (Uhl-Bien et al., 2007). The adaptive outcomes did not occur when the focal group experienced forceful hijacking due to the presence of path dependency.

The trajectory for future focal group interplay was constrained by the outcomes of past decisions, known as path dependency (Arthur, 1994). Path dependency was a non-proportional change that represented a nonlinear causal relationship that existed between organisational units during the process of adaptation to change

(Capra, 1997; Kauffman, 1993; Waldrop, 1992a). The trajectory of path dependency stems from the initial adaptation decisions the focal group made upon encountering a change in its contextual circumstances where it demonstrated behaviours representing an attractor state (Kay, Regier, Boyle, & Francis, 1999). The focal group's identity and functional integrity were an attractor state that was distinct from the dynamics experienced when it resisted change, identity is, by its very nature, is resistant to change.

When the focal group perceived a change as not threatening its identity, the leadership dynamics of formal leader, facilitator, or benign hijacker were experienced. The focal group was under the influence of negative feedback loops aimed at identity maintenance. The threat to the focal group's identity from the positive feedback loops of change saw the emergence of a forceful hijacker dynamic as individual members attempted to resist change and experience path dependency. Resistance was overcome with the focal group demonstrated critical fluctuations in the form of conflict behaviours and incurred bifurcation. Bifurcation was demonstrated by the focal group changing its identity and assuming a trajectory towards a new behavioural equilibrium state (K. Lewin, 1951; Thietart & Forgues, 1995).

Path dependency represented an attractor state that the informal group leader had fused her individual needs. The presence of path dependency limited the resilience of the focal group to adapt to changes in their contextual circumstances that threatened its identity and functional integrity, limiting its ability to adapt and learn from those experiences. A group's resilience or sustainability (Holling, 2004) requiring the capacity for "renewal, re-organisations and development" (Folke, 2006, p. 253).

Through the CAS perspective, the focal group adapted to changes from within its contextualised environment by involving all three dynamical layers as it demonstrated resilience and adaptive capacity. The group was able to self-organise and adapt its' behaviours accordingly to maintain functional integrity. However, resilience did not provide the focal group with the ability to develop continually. Resilience and adaptive capacity were equated by the focal group as the ability to

maintain its desired attractor state that was a product of its historical context. The degree of adaptation that the focal group did demonstrate through the self-organisation and emergence of facilitator and benign hijacker dynamics was guided by the causal relationship that exists between a group and its fitness landscape (Siggelkow, 2001). Where the adaptations populated a smooth landscape that ensured the needs of the forceful hijacker's social identity as a member of the focal group continued to provide social and emotional value (E. Smith et al., 2007).

The adaptation of the focal group's dynamics was a product of the interplay both within and across its contextualised environment. Where a member's role in the emergence of those dynamics required the examination of not only the descriptive traits as displayed by social role theory (Eagly & Karau, 1991) but through the cognitive traits outlined by Cooksey (2001). That enabled a more in-depth understanding of the self-organisation and emergence of the focal group's leadership dynamics. The inclusion of cognitive traits was in line with how CAS changes over time, becoming more complex systems (Eidelson, 1997). Where the addition of cognitive traits provided an added level of complexity, offering a more holistic understanding of the dynamics of a naturalistic group in situ.

Observing the focal group over a 12-month period did provide a limited snap shot of their behaviours produced through the interplay when they encounter certain changes in its contextual circumstances. The focal group may have a greater array of behaviours that would have been demonstrated if they incurred more dissimilar changes in their contextual circumstances than those during my observations. A greater range of behavioural responses would be expected from a group that was self-managed, long-term tenure and stable membership.

The changes in the focal group's dynamics were not only the result of the interplay between and within its contextualised environment but occur over time. As time passed, the interplay between all elements within a group's contextualised environment became more densely woven, creating dynamics that were increasingly sensitive to atypical changes in the group's contextual circumstances. It was this increased sensitivity that allowed the group to adapt quickly to changes in

its contextual circumstances (Burke et al., 2006; Tekleab et al., 2009) by experiencing differing leadership dynamics.

By viewing a group as a CAS, the principles of self-organisation, hierarchy, and emergence was present, where self-organisation was a group process that affected their hierarchy (structure) as change emerged. The focal group's ability to adapt depended upon how effectively they could change their structure while maintaining function and remain sustainable (Edson, 2010). A key factor in maintaining sustainability was the capacity to recover after incurring a system shock (Holling, 2004). The focal group successfully adapted to changes in its contextual circumstances when it's identity, and functional integrity was not threatened.

5.5. Implications for Management and Practice

The findings of this study provide theoretical and conceptual transportability about how a group's dynamics will unfold by attending to the changes that occur in their context. A group's context is the product of their interplay with its contextualised environment that is in a state of continuous change. A state of change that begins at a group's inception and continues its evolution revealed as its identity, where changes to a group's contextual circumstances are influenced by goal attainment and meeting individual needs. These changes are further influenced by contextual stability or turbulence, identity strength and longevity, the nature of the balance and imbalance between individual needs and group purpose, and the effect informal and formal leaders.

An understanding of the changes that occur in a group's context requires becoming informed of its historical context. A group's historical context will reveal a story that explains why they do or do not adapt their dynamics to changes they currently experience. Focussing on understanding the historical milestone adaptations to past contextual changes will provide insight into a group's dynamics and adaptation value system. Dynamics installed during a group's inception will influence initial group identity development through the creations of norms that are internalised and transmitted over the life span of a group (Sherif, 1966). A better understanding of a group's dynamics would provide insight into how a group constructs,

implements and modify coordination networks as they strive to attain group goals or meet individual needs. Management could apply this knowledge to better align coordination networks through the adjustment of members, tasks or tools to better meet their desired outcomes.

Groups adaptation value system gauges the degree of threat a contextual change presented to a group's identity, where the greater the threat was met with successively more invasive levels of adaptations to their leadership dynamics. The effect of those contextual changes threatens a group's identity and will cause their trajectory towards a new behavioural equilibrium state and a new identity. Each shift in a group's behavioural equilibrium state represents a milestone that over time collectively forms their historical context.

If a group has a predominate history of experiencing path dependency, this indicates their inability to adapt to atypical changes in their contextual circumstances. A group with a strong history of path dependency will have linked that experience with expected identity behaviours that are implicitly held and demonstrated by their formal leader, facilitator, or begin or forceful hijacker. Experiencing path dependency enables a group context to remain stable, void of conflict while functioning in a traditional manner. A path dependent group will lack resilience, and adaptive capacity will demonstrate an inability to adapt, innovate and learn which restricts the group to growth and development, being incapable of rapid adaptation to changes from within a complex contextualised environment.

To address the demands of a complex and globally competitive market places that are driven by innovation requires the application of self-managed groups that have adaptive leadership (Uhl-Bien & Marion, 2009). Adaptive leadership increases the adaptive capacity of a group providing it with the ability to deal with a highly competitive and complex market place (McKelvey, 2008). When a self-managed group, with a long tenure and stable membership, can become insular and self-motivated to meet individual needs and attain group goals over the support of organisational goals. What occurred was the development of a more intricate and complex set of decision-making behaviours that represent path dependency and the maintenance of its identity, creating a lack of ability for a group to adapt to atypical

changes in its contextual circumstances. If this group encountered higher than normal levels of volatility from within its contextual circumstances, it would eventually become non-productive and no longer viable.

The resolution of atypical changes requires a group to review multiple paths towards resolution in the pursuit of experiencing path dependency. If the group fails to experience path dependency and the avenue towards resolution is perceived by a member as being contrary to their individually held views about the group's fundamental identity and purpose, the group will experience an adaptation to their leadership dynamic and encounter forceful hijacking. The forceful hijacker will assume leadership of the group and apply both specific and diffuse status characteristics (negative feedback loops) in an attempt to create a level of resistance that can overcome the positive forces of change (positive feedback loops) and have the group experience path dependency.

The presence of heightened levels of negative and positive feedback loops in opposition causes conflict that is based on the difference in how a group should adapt to an atypical change from within its contextual circumstances. The presence of the forceful hijacker dynamic demonstrates that a conflict has risen from a task conflict to a relationship conflict, where the adaptation to an atypical change is no longer the issue (Jehn & Mannix, 2001; Simons & Peterson, 2000). Group function declines due to the negative effect of task conflict on performance when the correlation between task and relationship conflict is high, and the task is highly complex (De Dreu & Weingart, 2003).

When a group experiences the forceful hijacker dynamic, the presence of relationship conflict is demonstrated when "personal issues such as dislike among group members and feelings such as annoyance, frustration, and irritation" are displayed (Jehn & Mannix, 2001, p. 238). The conflict no longer focusses on outstanding issues surrounding adaptation but on the emotions caused by personal disputes or incompatibilities (Amason, 1996) and reflects a potential inability for the members involved to reach a functional resolution (Simons & Peterson, 2000), leaving a group unable to functionally address their need to adapt (Amason, 1996; Pearson, Ensley, & Amason, 2002).

A group and its members are targets and sources of reciprocal influence acting upon each party (Levine et al., 2001). The influence is guided by the expectation held by each party of rewardiness they will receive from their interplay, meeting individual needs and group goal attainment (Moreland & Levine, 2004). The identification of individual needs amongst group members was revealed in this study as having an influencing factor on group dynamics. When group goal attainment was aligned with meeting individual member needs, the group's leadership dynamics adaptations allowed for both to be obtained, experiencing path dependency.

The findings revealed that a group could resist adaptation to changes from within its contextual circumstances on an ongoing basis, experiencing an increase in group cohesion. The increase in cohesion is linked to social identity theory when members define and find their self-esteem through group membership (Tajfel & Turner, 1986). Over time, as a group experiences system shocks that place their professional status in doubt, harming their psychological health, the group responds by placing more reliance on group membership and discounting the sources of doubt (Cronin, Levin, Branscombe, van Laar, & Tropp, 2012). The result is an increase in group cohesion as a group experiences questions regarding their professional status.

As a group's contextual circumstances change and they incur various problems and systems shocks that they are unable to resolve through the application of current frameworks. What is required is a critique of current frameworks to facilitate learning through critical reflection. Critical reflection on past interpretation of the meaning of a group's experience allows future actions to be guided in new directions by changing the group's perspective through learning (Mezirow, 1991). The essence of learning is to gain a deeper sense of meaning by first examining the premise reflection which leads a group to question the basic assumptions that guide their judgements and consider the value of their solutions (Mezirow, 1991). Once this depth of reflection has occurred the group then critiques their current inability to reach a resolution. It is the deeper premise reflection that leads to meaningful changes in a group's frameworks, where reflective action is based on the insights from reflection leading to a focus on current actions (Langer & Dunne, 2015), and to

a higher reliance on the group's experience and critical reflection ability (D. Schwandt, 2005).

5.6. Implications for Methodology

I would argue that research into the social phenomena known as groups requires a holistic approach that allows an understanding of that phenomena in a naturalistic setting naturalistic group in situ. To gain this level of insight precludes the use of a positivist approach for the application of an interpretivist methodology, as I have demonstrated with my examination of group dynamics that emerged over time and were the product of a complex interplay between multiple contextual elements that led to that emergence. The use of a CGT methodology did provide the necessary understanding of a group's dynamics that emerged over time through the analysis of multiple data sources, towards theory generation from data derived from inductive and deductive reasoning (Charmaz, 2006).

The data collection approach used was the multiple method research approach (Brewer & Hunter, 2006), which allowed me to access the maximum number of available 'views' into a group's behaviour. The objective being, the more data sources accessed the clearer the understanding of a group's behaviour. The understanding that I sought was of the behaviours demonstrated by a group in their naturalistic context, which offered me examples of authentic behaviours that were not artificially controlled or induced through a laboratory setting.

The use of field notes provided the opportunity for me to 'debrief' after each participant observation session. Debriefing allowed me to identify the presence of my preconceptions within my interpretations made during the participant observation sessions. Limiting the presence of preconceptions allowed increased creativity in the development of new theoretical approaches to understanding a group's behaviour. I used memoing to note where my coding interpretations were influenced by my preconceptions. Once a bias was revealed, I took efforts to remove that bias by positioning myself to be closer to my data by comparing all my transcribed data against my digital recordings of the participant observation

sessions and interviews. By placing myself in this position, I gained a more in-depth and rich representation of what my transcribed material represented.

Further, upon review of my transcribed material, I noted that this data source was one dimensional and did not convey an accurate representation of the interplay I observed during the 12-monthly meetings. The initial state of the transcribed material presented the focal group's interplay as a series of partial statements or what appeared to be one-word responses. When in reality the behaviours demonstrated during those monthly meetings represented behaviours found at a 'cocktail party', with multiple individuals talking at once, trying to be heard over others. I added 'pre-codes' to my transcribed material that noted when members or the focal group used goal-orientated dynamics (jump-in, over-speak and gapless discussions). My transcribed material became a more accurate representation of the interplay that I observed over 12-monthly meetings (see Appendix 2).

5.7. Limitations

Discussing the limitations of one's research involves the "identification of potential hurdles to your study and constraints on your findings" (Cooksey & McDonald, 2011, p. 391). These limitations arose from the decisions I made that enabled me to complete my research, decisions required by a set of constraints created by my methodological choices, my role as the primary researcher, and the data sources made available to me.

Methodological Limitations

The use of CGT places the researcher at the centre of a study as the primary data collector and interpreter. Fulfilling these roles was influenced by my 20 years of working in groups and teaching interdisciplinary team skills, where I gained an understanding of the relationship between group function and group behaviour that allowed me to identify what I believed to be effective behaviours readily. These beliefs created a set of preconception biases that I applied during my initial data interpretation, skewing me from gaining a true understanding of what my data represented. Once aware of these biases through my use of field notes and memoing, I made efforts to remove their effect on my data interpretations.

Reflecting on what I had observed allowed me to segregate my judgments and expectations from my interpretations, helping me to achieve a more authentic participant-centred interpretation.

As my research progressed, the number of embedded contexts that I was able to account for was limited to those I could attend. I was not able to address those contextual elements that existed outside of the parameters of this study; those found within differing contextual groupings that would provide further insight into a group's behaviour. These contextual elements were, but were not limited to, those found in the environmental context (global, regional, and local events), interpersonal context (family expectations, peer, colleague, workmate expectations), intrapersonal context (neuropsychological functions, biological processes), and organisational context (communication patterns, policy, practices) (Cooksey, 2001, p. 89).

Transportability of this study was limited to the theoretical and conceptual understanding of adaptations to a group's dynamics related to changes in their context. Beyond these points, the findings of this study are constrained by the available resources and access to only a single group. The effect of these constraints is a limitation to the broader implications and meaningfulness of my findings to the focal group and its dynamics. The sufficiency of this research was affected by my limited access to historical documents (controlled by a group gatekeeper, Ann, who was also the main forceful hijacker in the focal group). Ann's role as group gatekeeper implies a bias towards limiting a holistic view of the focal group's history in favour of providing an insular view skewed towards the possible presentation of the focal group in a more positive light. The sufficiency of my study was further limited as I was unable to interview two of the focal group members, which would have added data to confirm or deny my interpretations of the focal group's behaviours (recall Table 4.1). My authenticity might have been affected in some instances by memory distortions or defensive postures in the one-on-one interviews or by possible holes in the historical record (or gaps in my access to certain records). My research cannot speak directly to positivistic concerns about quantifying aspects of group dynamics, since that was not my intent. Thus, my adopted guiding

assumptions do circumscribe the meaningfulness of learning to someone approaching the research from a positivist reductionist perspective.

Limitations of the Researcher

As the primary researcher for this study, I performed the collection, analysis, and interpretation of data, which was influenced by my past familiarity with members of the focal group, creating a halo effect (Coombs & Holladay, 2006; Naquin & Tynan, 2003; Nisbett & Wilson, 1977). Two years before I initiated this study, I had met and developed a social relationship with the majority of the members of the focal group. Over those two years, I gained a level of personal and professional knowledge about a number of the members that biased my early data gathering and analysis activities. I discovered that I had a tendency place expectations on what the data would represent (halo effect) (Coombs & Holladay, 2006) and once realised, I became concerned that my expectations were interfering with achieving an authentic understanding of the focal group's behaviours.

I proceeded to record in my field notes and memoing instances where these expectations were biasing my interpretations to minimise the risk of bias. I cannot say that the risks were completely negated, but by keeping my interpretations as close to the data as possible using the words and actions of participants to anchor those interpretations, the expectation bias was limited. My approach to participant observation, not interacting with members in the focal group context at all, assisted with limiting this bias, as did leaving the individual interviews until after I had completed the participant observation phase of the study. The interviews occurred after the participant observation sessions to limit the halo effect I could have incorporated if I had performed the interviews prior to the participant observation sessions (Coombs & Holladay, 2006; Naquin & Tynan, 2003; Nisbett & Wilson, 1977).

5.8. Future Directions for Research

An important theoretical picture to emerge from this study centred around the informal leadership dynamics of facilitating, benign hijacking, forceful hijacker, and the cascade effect, associated with their complex links to the focal group's developmental history. What is required for future research is a more extensive

exploration of such emergent dynamics in other groups and contexts? Specifically asking 'What is the role of a group's contextualised environment or history on the emergence and type of dynamics experienced?'. Gaining a more encompassing understanding of the dynamics experienced across multiple groups will provide more insight into the complex interplay that underpins those dynamics and a better understanding of the influences that contextual changes and shocks have on group behaviour. Furthermore, working across a range of groups could help researchers to identify relational patterns more clearly that can be observed to be common across contextual configurations as well as those which are unique to specific circumstances/ contexts.

My study offers insight into group dynamics from a holistic point of view, where dynamics emerged as changes in contextual circumstances occurred in the context of a single group. Deeper and more well-rounded understanding of the relationship between a group's dynamics and its contextualised environments could be achieved through increasing the diversity of the number of contextual elements addressed, group contexts explored, and types of groups studied. This could provide increased sufficiency and transportability through an expansion of data sources to probe the emergence of leadership dynamics more deeply.

The somewhat restricted access to historical and participant contextual elements in the current study constrained the understanding of the influence these elements had on my group's emerging leadership dynamics, thereby limiting sufficiency. Pathways forward could seek to expand the data sources drawn upon. For example, future group research could focus more closely on former group members as a way of further unpacking the historical trajectory of dynamic processes. As well, future research could tap into a greater variety of organisational data sources external to the focal group, but central to its contextual operating environment.

Sufficiency and contextual transportability could further be enhanced through exploration of a more diverse set of contextual elements as anticipated by Cooksey's (2001) CSDI, where the five spheres are theorised to encompass an array of finer-grained elements that could potentially offer a more in-depth understanding of a group 's contextualised environment (p. 89). For example, the environmental

context can be influenced by relevant global, regional, and local events, the interpersonal context encompasses family expectations, peer, colleague, and workmate expectations (some of which come from outside the focal group but which could have cascading impacts within the focal group) and the intrapersonal context includes physical health, neuropsychological functions and biological processes, the impacts of which could be reflected in certain group dynamics. Organisational contexts could be further understood through an analysis of communication patterns, policies, and practices as they relate to a specific group (Cooksey, 2001, p. 89).

Increasing the number of groups studied that are drawn from the same organisational and environmental contexts, while experiencing similar changes in contextual circumstances, could provide a better understanding of the influential role of interpersonal and intrapersonal contextual elements (Cooksey, 2001), contributing to transportability (Shenton, 2004). Any common leadership dynamics that emerge from such groups would offer transportability to other groups that exist within a similar organisational and environmental context while experiencing similar changes in contextual circumstances beyond the differences found within a group's interpersonal and intrapersonal contexts.

Transportability could also be enhanced by performing a comparative study between multiple groups that exist in different contextualised environments, examining the emergence of leadership dynamics as specific contextual circumstances changed. For example, a formal organisational group versus an informal recreational group comprised of organisational members (e.g., a senior management team versus a departmental cricket team) could provide an understanding into any common leadership dynamics that emerge regardless of differences in the contextualised environment as a group adapts to specific changes in its contextual circumstances. Another example here would be comparative research into the emergence of leadership dynamics relationship between groups that meet face-to-face versus virtually. The appearance of commonality across emerging leadership dynamics could strengthen an argument for transportability,

creating an expectation for the emergence of those specific leadership dynamics when certain changes in contextual circumstances occur.

Comparing the leadership dynamics that emerge over a set time frame between two groups that exist within similar contextualised environments and experience similar changes in contextual circumstances could offer another perspective on transportability (Shenton, 2004). The emergence of common specific leadership dynamics from these groups could be plotted along a timeline creating an expectation for the emergence of those dynamics at specific times.

A comparison of groups having different life spans (e.g., a group that has existed for a number of years compared to a group that has existed for a few months) could provide insight into the timelines behind the emergence of certain leadership dynamics. The focal groups studied would need to be from similar contextualised environments and experience the same type of contextual changes. What could be revealed is the emergence of leadership dynamics that are not time specific nor are they dependent upon a group's maturity level. What could also be more deeply explored in this scenario are the complexities associated with the ongoing historical evolution of each group.

The role(s) that prior background and professional/organisational status of group members (current as well as former) play in the emergence of leadership dynamics could be more deeply explored through enhanced connections with individual group members over time (e.g., through the use of multiple interviews). Here, interviews could be triggered by specific contextual events/shocks that immediately confront the focal group.

The synthesis of learning across such comparative studies could form the basis for developing a leadership dynamic identification/diagnosis tool that could assess the presence of specific dynamics while identifying the underlying contextual elements and contextual circumstance changes that support the dynamic's emergence. Such a tool could further offer a time line when the emergence of specific leadership dynamics would occur. Leadership dynamics could be assessed based on the influence they have on group performance with those dynamics that hinder group performance (i.e. forceful hijacking) having their identified contextual elements or

contextual circumstances either modified or removed as deemed necessary to maximise a group's performance.

REFERENCES

- Abraham, F. (1995). Introduction to dynamics: A basic language; a basic metamodeling strategy. In F. D. Abraham & A. R. Gilgen (Eds.), *Chaos theory in psychology* (pp. 31-49). Westport, CT: Praeger.
- Abraham, F., Abraham, R., & Shaw, C. (1990). *A visual introduction to dynamical systems theory for psychology*. Santa Cruz, CA: Aerial Press.
- Abraham, R. (2011). The genesis of complexity. *World Futures*, 67(4-5), 380-394.
- Abrams, D., & Hogg, M. (1988). Comments on the motivational status of self-esteem in social identity and intergroup discrimination. *European Journal of Social Psychology*, 18(4), 317-334.
- Abrams, D., Hogg, M. A., & Marques, J. M. (Eds.). (2005). *Social psychology of inclusion and exclusion*. New York: Psychology Press.
- Adger, W. N., Brown, K., Nelson, D. R., Berkes, F., Eakin, H., Folke, C., . . . Tompkins, E. L. (2011). Resilience implications of policy responses to climate change. *Wiley Interdisciplinary Reviews: Climate Change*, 2(5), 757-766. doi:10.1002/wcc.133
- Adger, W. N., Hughes, T. P., Folke, C., Carpenter, S. R., & Rockstrom, J. (2005). Social-Ecological Resilience to Coastal Disasters. *Science*, 309(5737), 1036-1039.
- Agazarian, Y. (1994). The phases of development and the systems-centered group. In V. L. Schermer & M. Pines (Eds.), *Ring of fire: Primitive affects and object relations in group psychotherapy* (pp. 36-85). New York: Routledge.
- Agazarian, Y. (1999). Phases of development in the Systems-Centered™ psychotherapy group. *Small Group Research*, 30(1), 82-107.
- Agazarian, Y., & Gantt, S. (2003). Phases of group development: Systems-centered hypotheses and their implications for research and practice. *Group Dynamics: Theory, Research, and Practice*, 7(3), 238-252.
- Agazarian, Y., & Gantt, S. (2005). The systems perspective. In S. A. Wheelan (Ed.), *The handbook of group research and practice* (pp. 187-201). Thousand Oaks, CA: Sage Publications, Inc.
- Ahearn, K. K., Ferris, G. R., Hochwarter, W. A., Douglas, C., & Ammeter, A. P. (2004). Leader political skill and team performance. *Journal of Management*, 30(3), 309-327.
- Alexander, V. D. (1998). Environmental constraints and organizational strategies: Complexity, conflict and coping in the non profit sector. In W. W. Powell & E. Clements (Eds.), *Private action and the public good* (pp. 272-290). New Haven, CT: Yale University Press.
- Allmendinger, J., & Hackman, J. R. (1996). Organizations in changing environments: The case of East German symphony orchestras. *Administrative Science Quarterly*, 41(3), 337-369.

- Allport, F. (1920). The influence of the group upon association and thought. *Journal of Experimental Psychology*, 3(3), 159-182.
- Allport, F. (1924). *Social psychology*. Boston: Houghton Mifflin.
- Alvesson, M., & Sköldbberg, K. (2009). *Reflexive methodology: New vistas for qualitative research* (2 ed.). London: Sage.
- Amason, A. C. (1996). Distinguishing the effects of functional and dysfunctional conflict on strategic decision making: Resolving a paradox for top management teams. *Academy of Management Journal*, 39(1), 123-148.
- Amason, A. C., & Sapienza, H. J. (1997). The effects of top management team size and interaction norms on cognitive and affective conflict. *Journal of Management*, 23(4), 495-501.
- Ancona, D. G., & Chung, C. (1996). Entrainment: Pace, cycle, and rhythm in organizational behavior. In B. Staw & L. L. Cummings (Eds.), *Research in Organizational Behavior* (pp. 251-284). New York: JAI.
- Anderson, C., John, O. P., Keltner, D., & Kring, A. M. (2001). Who attains social status? Effects of personality and physical attractiveness in social groups. *Journal of Personality and Social Psychology*, 81(1), 116-132.
- Anderson, P. (1999). Complexity theory and organization science. *Organization Science*, 10(3), 216-234.
- Archer, M. (1995). *Realist social theory: The morphogenetic approach*. Cambridge: Cambridge University Press.
- Argote, L., Devadas, R., & Melone, N. (1990). The base-rate fallacy: Contrasting processes and outcomes of group and individual judgment. *Organizational Behavior and Human Decision Processes*, 46(2), 296-310.
- Argote, L., Turner, M. E., & Fichman, M. (1989). To centralize or not to centralize: The effects of uncertainty and threat on group structure and performance. *Organizational Behavior and Human Decision Processes*, 43(1), 58-74.
- Arrow, H. (1997). Stability, bistability, and instability in small group influence patterns. *Journal of Personality and Social Psychology*, 72(1), 75-85.
- Arrow, H. (2005). Chaos, complexity, and catastrophe: The nonlinear dynamics perspective. In S. A. Wheelan (Ed.), *The handbook of group research and practice* (pp. 201-220). Thousand Oaks, CA: Sage.
- Arrow, H. (2006). Stability, bistability, and instability in small group influence patterns. In J. M. Levine & R. L. Moreland (Eds.), *Small groups: Key readings* (pp. 453-468). New York: Psychology Press.
- Arrow, H., Henry, K. B., Poole, M. S., Wheelan, S., & Moreland, R. (2005). Traces, trajectories, and timing: The temporal perspective on groups. In M. S. Poole & A. B. Hollingshead (Eds.), *Theories of small groups interdisciplinary perspectives* (pp. 2313-2368). Thousand Oaks, CA: Sage.

- Arrow, H., McGrath, J. E., & Berdahl, J. L. (2000). *Small groups as complex systems: Formation, coordination, development, and adaptation*. Thousand Oaks, CA: Sage.
- Arthur, W. B. (1989). Competing technologies, increasing returns, and lock-in by historical events. *Economic Journal*, 99(394), 116.
- Arthur, W. B. (1994). *Increasing returns and path dependence in the economy*. Ann Arbor: University of Michigan Press.
- Asch, S. E. (1952). *Social psychology*. New York: Prentice-Hall.
- Ashforth, B. E., & Mael, F. (1989). Social identity theory and the organization. *Academy of Management Review*, 14(1), 20-39.
- Axelrod, R. (1986). An evolutionary approach to norms. *The American Political Science Review*, 80(4), 1095-1111.
- Baba, K., & Nitta, R. (2014). Phase transitions in development of writing fluency from a complex dynamic systems perspective. *Language Learning*, 64(1), 1-35.
- Bailey, K. (1990). *Social entropy theory*. Albany, NY: State University of New York Press.
- Bailey, K. (1994). *Sociology and the new systems theory: Toward a theoretical synthesis*. Albany, NY: State University of New York Press.
- Bailey, K. (2006). Systems theory. In J. H. Turner (Ed.), *Handbook of Sociological Theory* (pp. 379-401). Boston, MA: Springer US.
- Bales, R. F. (1950). *Interaction process analysis: A method for the study of small groups*. Reading, MA: Addison-Wesley.
- Bales, R. F. (1970). *Personality and interpersonal behavior*. New York: Holt, Rinehart, and Winston.
- Bales, R. F. (1999). *Social interaction systems: Theory and measurement*. New Brunswick, NJ: Transaction.
- Bales, R. F., & Slater, P. E. (1955). Role differentiation in small decision-making groups III. In T. Parsons, R. F. Bales, & Associates (Eds.), *Family socialization and interact process* (pp. 259-305). Glencoe, IL: Free Press.
- Bales, R. F., & Strodtbeck, F. L. (1951). Phases in group problem-solving. *Journal of Abnormal and Social Psychology*, 46(4), 485-495.
- Bales, R. F., Strodtbeck, F. L., Mills, T. M., & Roseborough, M. E. (1953). Channels of communication in small groups. *American Sociological Review*, 16(4), 461-468.
- Balkundi, P., & Harrison, D. A. (2006). Ties, leaders, and time in teams: Strong inference about network structure's effects on team viability and performance. *Academy of Management Journal*, 49(1), 49-68.
- Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational Behavior and Human Decision Processes*, 50(2), 248-287.

- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Bansal, P. (2002). The corporate challenges of sustainable development. *Academy of Management Executive*, 16(2), 122-131.
- Bantel, K. A., & Jackson, S. E. (1989). Top management and innovations in banking: Does the composition of the top team make a difference? *Strategic Management Journal*, 10(S1), 107-124.
- Bar-Hillel, M. (1980). The base-rate fallacy in probability judgments. *Acta Psychologica*, 44(3), 211-233.
- Barber, S., Rajaram, S., & Aron, A. (2010). When two is too many: Collaborative encoding impairs memory. *Memory and Cognition*, 38(3), 255-264.
- Barker, J. R. (1993). Tightening the iron cage: Concertive control in self-managing teams. *Administrative Science Quarterly*, 38(3), 408-437.
- Barki, H., & Hartwick, J. (2004). Conceptualizing the construct of interpersonal conflict. *International Journal of Conflict Management*, 15(3), 216-244.
- Baron, R., Polemnia, G. A., & Beek, P. J. (1994). Local and global dynamics of social relations. In R. Vallacher & A. Nowak (Eds.), *Dynamical systems in social psychology* (pp. 111-138). San Diego: Academic Press.
- Barr, S. H., & Conlon, E. J. (1994). Effects of distribution of feedback in work groups. *Academy of Management Journal*, 37(3), 641-655.
- Barsade, S. G. (2002). The ripple effect: Emotional contagion and its influence on group behavior. *Administrative Science Quarterly*, 47(4), 644.
- Barsade, S. G., & Gibson, D. E. (1998). Group emotion: A view from top and bottom. In M. A. Neale, E. A. Mannix, & D. H. Gruenfeld (Eds.), *Research on Managing Groups and Teams* (Vol. 1, pp. 81-102). Stamford, CT: JAI.
- Barsade, S. G., & Gibson, D. E. (2012). Group affect: Its influence on individual and group outcomes. *Current Directions in Psychological Science*, 21(2), 119-123.
- Bartlett, F. C., Ginsberg, M., Lindgren, E. J., & Thouless, R. H. (1939). *The study of society: Methods and problems*. London: K. Paul, Trench, Trubner & Co.
- Barton, S. (1994). Chaos, self-organization, and psychology. *American Psychologist*, 49(1), 5-14.
- Baumeister, R. F. (1998). The self. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *Handbook of Social Psychology* (4 ed., Vol. 1). Boston, MA: McGraw-Hill.
- Bayazit, M., & Mannix, E. A. (2003). Should I stay or should I go?: Predicting team members' intent to remain in the team. *Small Group Research*, 34(3), 290-321. doi:10.1177/1046496403034003002
- Bazerman, M. H., & Neale, M. A. (1992). *Negotiating rationally*. New York: Free Press.
- Becker, H. (1958). Problems of inference and proof in participant observation. *American Sociological Review*, 23(6), 652-660.

- Beek, P. J., Verschoor, F., & Kelso, S. (1997). Requirements for the emergence of a dynamical social psychology. *Psychological Inquiry, 8*(2), 100-151.
- Behfar, K. J., Friedman, R. A., & Brett, J. M. (2008). *The team negotiation challenge: Defining and managing the internal challenges of negotiating teams*. Paper presented at the 21st Annual Conference of the International Association for Conflict Management, Chicago, IL.
- Bell, S. T., & Marentette, B. J. (2011). Team viability for long-term and ongoing organizational teams. *Organizational Psychology Review, 1*(4), 275-292.
- Bennett, A., & Bennett, D. (2004). *Organizational survival in the new world: The intelligent complex adaptive system*. Boston, MA: Butterworth-Heinemann.
- Bennis, W. G., & Sheppard, H. A. (1956). A theory of group development. *Human Relations, 9*, 415-437.
- Berg, D. N. (2005). Senior executive teams: Not what you think. *Consulting Psychology Journal: Practice and Research, 57*(2), 107-117.
- Berger, J. (1992). Expectations, theory, and group processes. *Social Psychology Quarterly, 55*(1), 3-11.
- Berger, J., Conner, T. L., & Fisek, M. H. (1974). *Expectation states theory: A theoretical research program*. Cambridge, MA: Winthrop Publishers.
- Berger, J., Fisek, H., & Norman, R. Z. (1989). The evolution of status expectations: A theoretical extension. In J. Berger, M. Zelditch, & B. Anderson (Eds.), *Sociological theories in progress: New formulations* (pp. 100-130). Newbury Park, CA: Sage.
- Berger, J., Ridgeway, C., & Zelditch, M. (2002). Construction of status and referential structures. *Sociological Theory, 20*(2), 157-179.
- Berger, P., & Luckmann, T. (1966). *The social construction of reality: A treatise in the sociology of knowledge*. New York: Random House.
- Berkes, F., Colding, J., & Folke, C. (Eds.). (2003). *Navigating social-ecological systems: Building resilience for complexity and change*. Cambridge, UK: Cambridge University Press.
- Bettenhausen, K., & Murnighan, J. K. (1985). The emergence of norms in competitive decision-making groups. *Administrative Science Quarterly, 30*(3), 350-372.
- Bettenhausen, K., & Murnighan, J. K. (1991). The development of an intragroup norm and the effects of interpersonal and structural challenges. *Administrative Science Quarterly, 36*(1), 20-35.
- Bhaskar, R. (1978). *Realist theory of science*. Brighton: Harvester Press.
- Bion, W. R. (1961). *Experiences in groups*. London: Tavistock.
- Blackman, D., & Kennedy, M. (2009). Knowledge management and effective university governance. *Journal of Knowledge Management, 13*(6), 547-563. doi:10.1108/13673270910997187

- Blau, P. (1977a). *Inequality and heterogeneity: A primitive theory of social structure*. New York: Free Press.
- Blau, P. (1977b). A macrosociological theory of social structure. *American Journal of Sociology*, 83(1), 26-54.
- Blau, P. (1994). *Structural contexts of opportunities*. Chicago, IL: University of Chicago Press.
- Blaxter, L., Hughes, C., & Tight, M. (2001). *How to research* (2 ed.). Buckingham: Open University Press.
- Blumer, H. (1969). *Symbolic interactionism: Perspective and method*. Englewood Cliffs, NJ: Prentice-Hall.
- Boeker, W. (1997). Strategic change: The influence of managerial characteristics and organizational growth. *Academy of Management Journal*, 40(1), 152-170.
- Bollen, K. A., & Hoyle, R. H. (1990). Perceived cohesion: A conceptual and empirical examination. *Social Forces*, 69(2), 479-504.
- Boninger, D. S., Krosnick, J. A., & Berent, M. K. (1995). Origins of attitude importance: Self-interest, social identification, and value relevance. *Journal of Personality and Social Psychology*, 68(1), 61-80. doi:10.1037/0022-3514.68.1.61
- Bonito, J. A., DeCamp, M. H., Coffman, M., & Fleming, S. (2006). Participation, information, and control in small groups: An actor-partner interdependence model. *Group Dynamics: Theory, Research, and Practice*, 10(1), 16-28.
- Bonito, J. A., Decamp, M. H., & Ruppel, E. K. (2008). The process of information sharing in small groups: Application of a local model. *Communication Monographs*, 75(2), 136-157.
- Bonito, J. A., & Hollingshead, M. (1997). Participation in small groups. *Communication Yearbook*, 20, 227-261.
- Bonner, B. L., Okhuysen, G. A., & Sondak, H. (2011). Intragroup decision making in intergroup negotiation: Majority/minority effects and hawkishness of member preferences. *Group Dynamics: Theory, Research, and Practice*, 15(3), 246-257.
- Bottger, P. C. (1984). Expertise and air time as bases of actual and perceived influence in problem-solving groups. *Journal of Applied Psychology*, 69(2), 214-221.
- Boulding, K. E. (1962). *Conflict and defense: A general theory*. New York: Harper.
- Bowers, B., & Schatzman, L. D. (2009). Dimensional analysis. In J. Morse, N. S. Stern, J. Corbin, B. Bowers, K. Charmaz, & A. E. Clarke (Eds.), *Developing grounded theory: Second generation* (pp. 86-106). Walnut Creek: Left Coast Press.
- Boyatzis, R. E., McKee, A., & Synnestvedt, E. (2009). *Resonant leadership*. Rego Park: Gildan Media Corp.
- Braam, R., & van den Besselaar, P. (2010). Life cycles of research groups: The case of CWTS. *Research Evaluation*, 19(3), 173-184.

- Braaten, L. J. (1975). Developmental phases of encounter groups: A critical review of models and a new proposal. *Interpersonal Development, 75*, 1144-1150.
- Bray, S. R., & Brawley, L. R. (2002). Role efficacy, role clarity, and role performance effectiveness. *Small Group Research, 33*(2), 233-253.
- Brewer, J., & Hunter, A. (2006). *Foundations of multimethod research: Synthesizing styles*. London: Sage.
- Brief, A. P., & Weiss, H. M. (2002). Organizational behavior: Affect in the workplace. *Annual Review of Psychology, 53*(1), 279-307.
doi:10.1146/annurev.psych.53.100901.135156
- Brown, T., & Miller, C. E. (2000). Communication networks in task-performing groups: Effects of task complexity, time pressure, and interpersonal dominance. *Small Group Research, 31*(2), 131-157.
- Brunswik, E. (1947). Perception and representative design of psychological experiments. In E. Brunswik (Ed.), *Systematic and representative design of psychological experiments, with results in physical and social perception* (pp. 3-60). Berkeley: University of California Press.
- Bryant, A. (2002). Re-grounding grounded theory. *Journal of Information Technology Theory and Application, 4*(1), 25-42.
- Bryant, A. (2003). A constructive/ist response to Glaser. *Forum: Qualitative social research, 4*(1).
- Bryant, A., & Charmaz, K. (2011). Grounded theory. In M. Williams & W. P. Vogt (Eds.), *The Sage handbook of innovation in social research methods* (pp. 205-227). Los Angeles: Sage.
- Bryant, A., & Charmaz, K. (Eds.). (2010). *The Sage handbook of grounded theory*. London: Sage.
- Burke, C. S., Stagl, K. C., Salas, E., Pierce, L., & Kendall, D. (2006). Understanding team adaptation: A conceptual analysis and model. *Journal of Applied Psychology, 91*(6), 1189-1207.
- Burnes, B. (2004). Kurt Lewin and complexity theories: Back to the future? *Journal of Change Management, 4*(4), 309-325.
- Butler, T. (1998). Towards a hermeneutic method for interpretive research in information systems. *Journal of Information Technology, 13*(4), 285-300.
- Calhoun, C. (1998). Explanation in historical sociology: Narrative, general theory, and historically specific theory. *American Journal of Sociology, 104*(3), 846-871.
- Campbell, J., Flynn, J. D., & Hay, J. (2011). The group development process seen through the lens of complexity theory. *International Scientific Journal of Methods and Models of Complexity, 6*(1), 1-33.
- Cannon-Bowers, J. A., Salas, E., & Converse, S. A. (1993). Shared mental models in expert team decision making. In N. J. Castellan (Ed.), *Individual and group decision making* (pp. 221-246). Hillsdale, NJ: Lawrence Erlbaum Associate.

- Capelo, C., & Dias, J. F. (2009). A system dynamics-based simulation experiment for testing mental model and performance effects of using the balanced scorecard. *System Dynamics Review*, 25(1), 1-34.
- Capra, F. (1997). *The web of life: A new synthesis of mind and matter*. London: Harper Collins.
- Carless, S. A., & De Paola, C. (2000). The measurement of cohesion in work teams. *Small Group Research*, 31(1), 71-88.
- Carley, K. (1991). A theory of group stability. *American Sociological Review*, 56(3), 331-354. doi:10.2307/2096108
- Carnevale, P. J., & Probst, T. M. (1998). Social values and social conflict in creative problem solving and categorization. *Journal of Personality and Social Psychology*, 74(5), 1300-1309.
- Carpenter, S., Walker, B., Anderies, J. M., & Abel, N. (2001). From metaphor to measurement: Resilience of what to what? *Ecosystems*, 4(8), 765-781. doi:10.1007/s10021-001-0045-9
- Carron, A. V., & Hausenblas, H. A. (1998). *Group dynamics in sport* (2 ed.). Morgantown, WV: Fitness Information Technology.
- Cartwright, D. (1968). The nature of cohesiveness. In D. Cartwright & A. Zander (Eds.), *Group dynamics: Research and theory* (3 ed., pp. 91-109). New York: Harper & Row.
- Cartwright, D., & Zander, A. (1968a). *Group dynamics: Research and theory* (3 ed.). New York: Harper & Row.
- Cartwright, D., & Zander, A. (1968b). Origins of group dynamics. In D. Cartwright & A. Zander (Eds.), *Group dynamics: Research and theory* (3 ed., pp. 3-21). New York, NY: Tavistock Publications.
- Carver, C. S., & Scheier, M. (1981). *Attention and self-regulation: A control-theory approach to human behavior*. New York: Springer-Verlag.
- Chaplin, W. F., Phillips, J. B., Brown, J. D., Clanton, N. R., & Stein, J. L. (2000). Handshaking, gender, personality, and first impressions. *Journal of Personality and Social Psychology*, 79(1), 110-117.
- Charmaz, K. (2000). Constructivist and objectivist grounded theory. In Y. S. Lincoln & N. K. Denzin (Eds.), *Handbook of qualitative research* (2 ed., pp. 509-535). Thousand Oaks, CA: Sage.
- Charmaz, K. (2002). Grounded theory: Methodology and theory construction. In P. B. Baltes & N. J. Smelser (Eds.), *International encyclopedia of the social and behavioral sciences* (pp. 6396-6399). Amsterdam: Pergamon.
- Charmaz, K. (2006). *Constructivist grounded theory*. London: Sage.
- Charmaz, K. (2009). *Developing grounded theory: The second generation* (J. Morse, N. S. Stern, J. Corbin, & B. Bowers Eds.). London: Sage.
- Charmaz, K. (2010). *Constructing grounded theory: A practical guide through qualitative analysis*. London: Sage.

- Checkland, P. (2008). *Systems thinking, systems practice*. New York: Wiley.
- Chenitz, W. C., & Swanson, J. M. (1986). *From practice to grounded theory: Qualitative research in nursing*. Englewood Cliffs, NJ: Addison-Wesley.
- Cialdini, R. B., Borden, R. J., Thorne, A., Walker, M. R., Freeman, S., & Sloan, L. R. (1976). Basking in reflected glory: Three (football) field studies. *Journal of Personality and Social Psychology*, 34(3), 366-375.
- Cilliers, P. (2011). Complexity, poststructuralism and organization. In P. Allen, S. Maguire, & B. McKelvey (Eds.), *The Sage handbook of complexity and management* (pp. 142-154). London: Sage.
- Cissna, K. N. (1984). Phases in group development: The negative evidence. *Small Group Research*, 15, 3-32.
- Clarke, A. E. (2005). *Situational analysis: Grounded theory after the postmodern turn*. Thousand Oaks, CA: Sage Publications.
- Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education* (6 ed.). London: Routledge.
- Cohen, S., Ledford, G. E., & Spreitzer, G. M. (1996). A predictive model of self-managing work team effectiveness. *Human Relations*, 49(5), 643-676.
- Coleman, J. S. (1990). *Foundations of social theory*. Cambridge: Belknap Press.
- Collins, R. (1975). *Conflict sociology: Toward an explanatory science*. New York: Academic Press.
- Collins, R. (1981a). Micro-translation as a theory-building strategy. In K. Knorr-Cetina & A. V. Cicourel (Eds.), *Advances in social theory and methodology: Toward an integration of micro- and macro-sociologies* (pp. 76-84). New York: Methuen.
- Collins, R. (1981b). On the microfoundations of macrosociology. *American Journal of Sociology*, 86(5), 984-1014.
- Collins, R. (1998). *The sociology of philosophies: A global theory of intellectual change*. Cambridge, MA: The Belknap Press of Harvard University Press.
- Collins, R. (2014). Interaction ritual chains.
- Connors, J. V., & Caple, R. B. (2005). A review of group systems theory. *The Journal for Specialists in Group Work*, 30(2), 93-110.
- Cooksey, R. W. (2001). What is complexity science? A contextually grounded tapestry of systemic dynamism, paradigm diversity, theoretical eclecticism, and organizational learning. *Emergence: Complexity and Organization*, 3(1), 77-103.
- Cooksey, R. W. (2008). *Paradigm-independent meta-criteria for social and behavioural research*. Paper presented at the 2nd Annual Postgraduate Research Conference, Armidale, NSW.
- Cooksey, R. W., & McDonald, G. (2011). *Surviving and thriving in postgraduate research*. Prahran, Vic.: Tilde University Press.

- Coombs, T. W., & Holladay, S. J. (2006). Unpacking the halo effect: Reputation and crisis management. *Journal of Communication Management*, 10(2), 123-137.
- Cooper, D., & Watson, W. (2011). Conflict and performance in US and Mexican learning teams. *Cross Cultural Management*, 18(4), 426-442.
- Copi, I. M., Cohen, C., & Flage, D. E. (2007). *Essentials of logic* (2 ed.). Upper Saddle River, NJ: Pearson Education.
- Correll, S. J., & Ridgeway, C. (2006). Expectation states theory. In J. D. DeLamater (Ed.), *Handbook of social psychology* (pp. 29-51). New York: Springer.
- Cowan, G., Pines, D., & Meltzer, D. (1994). *Complexity: Metaphors, models, and reality*. Reading, MA: Addison Wesley.
- Cowan, R., & Gunby, P. (1996). Sprayed to death: Path dependence, lock-in and pest control strategies. *The Economic Journal*, 106(436), 521-542.
- Creswell, J. W. (2006). *Research design: Qualitative quantitative and mixed methods approaches* (3 ed.). London: Sage, Inc.
- Cronin, T. J., Levin, S., Branscombe, N. R., van Laar, C., & Tropp, L. R. (2012). Ethnic identification in response to perceived discrimination protects well-being and promotes activism: A longitudinal study of Latino college students. *Group Processes and Intergroup Relations*, 15(3), 393-407.
- Crotty, M. (2010). *The foundations of social research: Meaning and perspective in the research process*. St. Leonards, AUS: Sage.
- Curtin University. (2016a, July 23, 2016). Award. *Uni terms explained*. Retrieved from <http://www.mmu.ac.uk/academic/casqe/regulations/docs/definitions.pdf>
- Curtin University. (2016b, July 23, 2016). School. *Uni terms explained*. Retrieved from <http://www.mmu.ac.uk/academic/casqe/regulations/docs/definitions.pdf>
- Curtin University. (2016c, July 23, 2016). Unit. *Uni terms explained*. Retrieved from <http://www.mmu.ac.uk/academic/casqe/regulations/docs/definitions.pdf>
- Cutcliffe, J. R. (2000). Methodological issues in grounded theory. *Journal of Advanced Nursing*, 31, 1476-1484.
- Daft, R. L., & Huber, G. P. (1987). How organizations learn: A communication framework. In S. Bacharach & N. Ditomaso (Eds.), *Research in Sociology of Organizations* (Vol. 5, pp. 1-36). Greenwich, CT: JAI Press.
- David, P. A. (1985). Clio and the economics of QWERTY. *American Economic Review*, 75(2), 332-337.
- Davies, D., & Kuypers, B. C. (1985). Group development and interpersonal feedback. *Group and Organization Studies*, 10(2), 184-209.
- Davis, H. (2015). Social complexity theory for sense seeking: Unearthing leadership mindsets for unknowable and uncertain times. *Emergence: Complexity and Organization*, 1, 1-14.

- De Clercq, D., Thongpapanl, N., & Dimov, D. (2009). When good conflict gets better and bad conflict becomes worse: the role of social capital in the conflict-innovation relationship. *Journal of Academy of Marketing Science*, 37(3), 283-297.
- De Dreu, C. K. (2006). When too little or too much hurts: Evidence for a curvilinear relationship between task conflict and innovation in teams. *Journal of Management*, 32(1), 83-107.
- De Dreu, C. K. (2008). The virtue and vice of workplace conflict: Food for (pessimistic) thought. *Journal of Organizational Behavior*, 29(1), 5-18.
- De Dreu, C. K., & de van Vliert, E. (1997). *Using conflict in organizations*. Thousand Oaks, CA: Sage.
- De Dreu, C. K., & Gelfand, M. J. (2008). Conflict in the workplace: Sources, functions, and dynamics across multiple levels of analysis. In C. K. W. DeDreu & M. J. Gelfand (Eds.), *The psychology of conflict and conflict management in organizations* (pp. 3-54). New York: Lawrence Erlbaum Associates.
- De Dreu, C. K., Nijstad, B. A., & van Knippenberg, D. (2008). Motivated information processing in group judgment and decision making. *Pers Soc Psychol Rev*, 12(1), 22-49.
- De Dreu, C. K., & van Knippenberg, D. (2005). The possessive self as a barrier to conflict resolution: Effects of mere ownership, process accountability, and self-concept clarity on competitive cognitions and behavior. *Journal of Personality and Social Psychology*, 89(3), 345-357. doi:10.1037/0022-3514.89.3.345
- De Dreu, C. K., & Weingart, L. R. (2003). Task versus relationship conflict, team performance, and team member satisfaction: a meta-analysis. *Journal of Applied Psychology*, 88(4), 741-749.
- De Wit, F., Greer, L. L., & Jehn, K. A. (2012). The paradox of intragroup conflict: A meta-analysis. *Journal of Applied Psychology*, 97(2), 360-390.
- DeChurch, L. A., & Marks, M. A. (2001). Maximizing the benefits of task conflict: The role of conflict management. *International Journal of Conflict Management*, 12(1), 4-22.
- DeChurch, L. A., & Mesmer-Magnus, J. (2010). Measuring shared team mental models: A meta-analysis. *Group Dynamics: Theory, Research, and Practice*, 14(1), 1-14.
- Deiner, E. (1980). Deindividuation: The absence of self-awareness and self-regulation in group members. In P. B. Paulus (Ed.), *Psychology of group influence* (pp. 209-242). Hillsdale, NJ: Lawrence Erlbaum.
- Desai, D. A. (2010). Co-creating learning: Insights from complexity theory. *The Learning Organization*, 17(5), 388-403.
- Dess, G. G., Rasheed, A. M. A., McLaughlin, K. J., & Priem, R. L. (1995). The new corporate architecture. *Academy of Management Perspectives*, 9(3), 7-18.

- Deutsch, M., & Gerard, H. B. (1955). A study of normative and informational social influences upon individual judgment. *Journal of Abnormal and Social Psychology, 51*(3), 629-636.
- Devine, D. J., Clayton, L. D., Philips, J. L., Dunford, B. B., & Melner, S. B. (1999). Teams in organizations: Prevalence, characteristics, and effectiveness. *Small Group Research, 30*(6), 678-711.
- Dey, I. (1999). *Grounding grounded theory: Guidelines for qualitative inquiry*. San Diego, CA: Academic Press.
- Dijkstra, M. T. M., van Dierendonck, D., & Evers, A. (2005). Responding to conflict at work and individual well-being: The mediating role of flight behaviour and feelings of helplessness. *European Journal of Work and Organizational Psychology, 14*(2), 119-135. doi:10.1080/13594320444000254
- Doise, W. (1969). Intergroup relations and polarization of individual and collective judgments. *Journal of Personality and Social Psychology, 12*(2), 136-143.
- Doolittle, P. E. (2014). Complex constructivism: A theoretical model of complexity and cognition. *International Journal of Teaching and Learning in Higher Education, 26*(3), 485-498.
- Dougherty, D., & Hardy, C. (1996). Sustained product innovation in large, mature organizations: Overcoming innovation-to-organization problems. *Academy of Management Journal, 39*(5), 1120-1153. doi:10.2307/256994
- Dovidio, J. F. (2013). Bridging intragroup processes and intergroup relations: Needing the twain to meet. *British Journal of Social Psychology, 52*(1), 1-24.
- Drack, M., & Schwarz, G. (2010). Recent developments in general system theory. *Systems Research and Behavioral Science, 27*(6), 601-610.
- Dunphy, D., & Bryant, B. (1996). Teams: Panaceas or prescriptions for improved performance? *Human Relations, 49*(5), 677-699.
- Durkheim, E. (1895). *The rules of sociological method*. Paris: F. Alcan.
- Durkheim, E. (1965). *The elementary forms of the religious life*. New York: Free Press.
- Eagle, J. (1981). Scapegoating in small groups: An organizational approach. *Human Relations, 34*(4), 283-301.
- Eagly, A. H., & Karau, S. J. (1991). Gender and the emergence of leaders: A meta-analysis. *Journal of Personality and Social Psychology, 60*(5), 685-710.
- Edmondson, A., Roberto, M. A., & Watkins, M. (2003). A dynamic model of top management team effectiveness: Managing unstructured task teams. *Leadership Quarterly, 14*, 297-325.
- Edson, M. C. (2010, July 18--23, 2010). *Group development: A complex adaptive systems perspective*. Paper presented at the Proceedings of 54th Meeting of International Society for Systems Sciences, Wilfrid Laurier University, Waterloo, ON.

- Edson, M. C. (2012). A complex adaptive systems view of resilience in a project team. *Systems Research and Behavioral Science, 29*(5), 499-516.
- Eidelson, R. J. (1997). Complex adaptive systems in the behavioral and social sciences. *Review of General Psychology, 1*(1), 42-71.
- Elrod, P., & Tippet, D. (1998). An empirical study of the relationship between team performance and team maturity. *IEEE Engineering Management Review, 36*(1), 7-14.
- Emirbayer, M., & Mische, A. (1999). What is agency? *American Journal of Sociology, 103*(4), 962-1023.
- Engel, J. D., & Kuzel, A. J. (1992). On the idea of what constitutes good qualitative inquiry. *Qualitative Health Research, 2*(4), 504-510.
- Erffmeyer, R. C., & Lane, I. M. (1984). Quality and acceptance of an evaluative task: The effects of four group decision-making formats. *Group and Organization Studies, 9*(4), 509.
- Evan, W. M. (1965). Conflict and performance in R & D organizations. *Industrial Management Review, 7*(1), 35.
- Evans, C. R., & Dion, K. L. (2012). Group cohesion and performance. *Small Group Research, 43*(6), 690-701.
- Farh, J.-L., Lee, C., & Farh, C. I. C. (2010). Task conflict and team creativity: A question of how much and when. *Journal of Applied Psychology, 95*(6), 1173-1180. doi:10.1037/a0020015
- Farmer, J. D. (1995). The second law of organization. In J. Brockman (Ed.), *The third culture* (pp. 359-375). New York: Simon & Schuster.
- Feldman, D. C. (1984). The development and enforcement of group norms. *Academy of Management Review, 9*(1), 47-53.
- Ferris, G. R., Treadway, D. C., Kolodinsky, R. W., Hochwarter, W. A., Kacmar, C. J., Douglas, C., & Frink, D. D. (2005). Development and validation of the political skill inventory. *Journal of Management, 31*(1), 126-152.
- Ferris, G. R., Treadway, D. C., Perrewé, P. L., Brouer, R. L., Douglas, C., & Lux, S. (2007). Political skill in organizations. *Journal of Management, 33*(3), 290-320.
- Festinger, L. (1950). Informal social communication. *Psychological Review, 57*(5), 271-282.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations, 7*(2), 117-140.
- Festinger, L., Schachter, S., & Back, K. W. (1963). *Social pressures in informal groups: A study of human factors in housing*. Stanford, CA: Stanford University Press.
- Fine, G. A., & Kleinman, S. (1979). Rethinking subculture: An interactionist analysis. *American Journal of Sociology, 85*(1), 1-20.

- Fink, C. F. (1968). Some conceptual difficulties in the theory of social conflict. *Journal of Conflict Resolution*, 12(4), 412.
- Firestien, R. L. (1990). Effects of creative problem solving training on communication behaviors in small groups. *Small Group Research*, 21(4), 507-521.
- Fiske, S. (2010). Interpersonal stratification: Status, power, and subordinate. In S. T. Fiske, D. T. Gilbert, G. Lindzey, & A. E. Jongsma (Eds.), *Handbook of social psychology* (5 ed., Vol. 2, pp. 941-982). Hoboken, NJ: Wiley.
- Fiske, S., & Taylor, S. (2008). *Social cognition: From brains to culture*. Boston: McGraw-Hill Higher Education.
- Fodor, E. M., & Wick, D. P. (2009). Need for power and affective response to negative audience reaction to an extemporaneous speech. *Journal of Research in Personality*, 43(5), 721-726.
- Foladare, I. S. (1969). A clarification of "ascribed status" and "achieved status". *The Sociological Quarterly*, 10(1), 53-61.
- Folger, J., Poole, M. S., & Stutman, R. (1993). *Working through conflict: A communication perspective* (2 ed.). Glenview, IL: Scott, Foresman.
- Folger, J., Poole, M. S., & Stutman, R. (2009). *Working through conflict: Strategies for relationships, groups, and organizations*. Boston, MA: Allyn and Bacon.
- Folger, R. (1977). Distributive and procedural justice: Combined impact of voice and improvement on experienced inequity. *Journal of Personality and Social Psychology*, 35(2), 108-119.
- Folke, C. (2006). Resilience: The emergence of a perspective for social-ecological systems analyses. *Global Environmental Change*, 16(3), 253-267.
doi:10.1016/j.gloenvcha.2006.04.002
- Ford, C., & Ogilvie, D. (1996). The role of creative action in organizational learning and change. *Journal of Organizational Change Management*, 9(1), 54-63.
- Ford, R. (2008). Complex adaptive systems and improvisation theory: Toward framing a model to enable continuous change. *Journal of Change Management*, 8(3-4), 173-198.
- Forrester, J. W. (1961). *Industrial dynamics*. Cambridge, MA: M.I.T. Press.
- Forrester, J. W. (1968). *Principles of systems*. Cambridge, MA: Wright-Allen Press.
- Forrester, J. W. (1994). System dynamics, systems thinking, and soft OR. *System Dynamics Review*, 10(2/3), 245-256.
- Forsyth, D. (2010). *Group dynamics* (5 ed.). Belmont, CA: Thomson Wadsworth.
- Forsyth, D. (2014). *Group dynamics* (6 ed.). Belmont, CA: Thomson Wadsworth.
- Forsyth, D., & Burnette, J. L. (2005). The history of group research. In S. A. Wheelan (Ed.), *The handbook of group research and practice* (pp. 3-19). Thousand Oaks, CA: Sage.
- Freeman, L. C. (2004). *The development of social network analysis: A study in the sociology of science*. North Charleston, SC: Empirical Press.

- Frese, M., & Zapf, D. (1994). Action as the core of work psychology: A German approach. In H. C. Triandis, M. D. Dunette, & M. H. Leatta (Eds.), *Handbook of industrial and organizational psychology* (2 ed., pp. 271-340). Chicago, IL: Consulting Psychologists.
- Frey, L. R. (2004). The symbolic-interpretive perspective on group dynamics. *Small Group Research*, 35(3), 277-306.
- Frijda, N. H., Kuipers, P., & Schure, E. (1989). Relations among emotion, appraisal, and emotional action readiness. *Journal of Personality and Social Psychology: Attitudes and Social Cognition*, 57(2), 212-228.
- Ganster, D. C., Williams, S., & Poppler, P. (1991). Does training in problem solving improve the quality of group decisions? *Journal of Applied Psychology*, 76(3), 479-483.
- Gell-Mann, M. (1994). Complex adaptive systems. In G. A. Cowan, D. Pines, & D. Meltzer (Eds.), *Complexity: Metaphors, models, and reality* (Vol. 19, pp. 17-45). Reading, MA: Addison-Wesley.
- Gersick, C. J. G. (1988). Time an transition in work teams: Toward a new model of group development. *Academy of Management Journal*, 31(1), 9-41.
- Gersick, C. J. G. (1989). Marking time: Predictable transitions in task groups. *Academy of Management Journal*, 32(2), 274-309.
- Gersick, C. J. G. (1991). Revolutionary change theories: A multilevel exploration of the punctuated equilibrium paradigm. *Academy of Management Review*, 16(1), 10-36.
- Gersick, C. J. G., & Hackman, J. R. (1990). Habitual routines in task-performing groups. *Organizational Behavior and Human Decision Processes*, 47(1), 65-97.
- Giacalone, R., & Pollard, H. G. (1990). Acceptance of managerial accounts for unethical supervisory behavior. *Journal of Social Psychology*, 130(1), 103-109.
- Giacalone, R., & Promislo, M. (2010). Unethical and unwell: Decrements in well-being and unethical activity at work. *Journal of Business Ethics*, 91(2), 275-297.
- Giddings, F. H. (1922). Social theory and public policy. In *Studies in the theory of human society* (pp. 209-223). New York: Macmillan.
- Gladstein, D. L. (1984). Groups in context: A model of task group effectiveness. *Administrative Science Quarterly*, 29(4), 499-517.
- Glance, N. S., & Huberman, B. A. (1994). The dynamics of social dilemmas. *Scientific American*, 270(3), 76.
- Glaser, B. (2001). *The grounded theory perspective: Conceptualization contrasted with description*. Mill Valley, CA: Sociology Press.
- Glaser, B. (2004). Remodeling grounded theory. *Grounded Theory Review*, 4(1), 1-24.
- Glaser, B., & Strauss, A. (1965). *Awareness of dying*. Chicago, IL: Aldine.

- Glaser, B., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago, IL: Aldine.
- Glesne, C. (2010). *Becoming a qualitative researcher: an introduction*. Boston, MA: Allyn and Bacon.
- Godfrey, D. K., Jones, E. E., & Lord, C. G. (1986). Self-promotion is not ingratiating. *Journal of Personality and Social Psychology*, 50(1), 106-115.
- Goerner, S., & Langhorne, P. A. (1994). Chaos and the evolving ecological universe. *Gordon Breach*.
- Goffman, E. (1967). *Interaction ritual: Essays on face-to-face behavior*. Garden City, NY: Doubleday.
- Goldstein, J. (2011). Emergence in complex systems. In P. Allen, S. Maguire, & B. McKelvey (Eds.), *The Sage handbook of complexity and management* (pp. 65-78). London: Sage.
- Goltz, S. M., Citera, M., Jensen, M., Favero, J., & Komaki, J. L. (1989). Individual feedback: Does it enhance effects of group feedback? *Journal of Organizational Behavior Management*, 10, 77-92.
- Goulding, C. (2002). *Grounded theory: A practical guide for management*. London: Sage.
- Government of Australia. (2016). Higher Education. Retrieved from <http://www.australia.gov.au/information-and-services/education-and-training/higher-education>
- Gramer, M., & Schön, S. (2015). Experimental manipulations of social status and stress-induced cardiovascular responses in high and low trait dominant men. *Personality and Individual Differences*, 85(0), 30-34.
- Griffin, D., & Stacey, R. (2005). Experience and method: A complex responsive processes perspective on research in organizations. In *A complexity perspective on researching organisations: Taking experience seriously* (pp. 13-38). New York: Routledge.
- Griffin, L. (1993). Narrative, event-structure analysis, and causal interpretation in historical sociology. *American Journal of Sociology*, 98(5), 1094-1133.
- Griffin, R. (2005). *Management* (8 ed.). New York: Houghton Mifflin Company.
- Gruenfeld, D. H. (2006). Status, ideology, and integrative complexity on the U.S. Supreme Court: Rethinking the politics of political decision making. In J. M. Levine & R. L. Moreland (Eds.), *Small groups: Key readings* (pp. 133-156). New York: Psychology Press.
- Guastello, S. J. (1995a). *Chaos, catastrophe, and human affairs*. Mahwah, NJ: Lawrence Erlbaum Associates Inc.
- Guastello, S. J. (1995b). Facilitative style, individual innovation, and emergent leadership in problem solving groups. *The Journal of Creative Behavior*, 29(4), 225-239.

- Guastello, S. J. (2007). Non-linear dynamics and leadership emergence. *The Leadership Quarterly*, 18(4), 357-369.
- Guastello, S. J. (2011). Nonlinear dynamical systems applications to psychology and management. In P. Allen, S. Maguire, & B. McKelvey (Eds.), *The Sage Handbook of Complexity and Management* (pp. 543-556). London: Sage.
- Guastello, S. J., Craven, J., Zygowicz, K. M., & Bock, B. R. (2005). A rugged landscape model for self-organization and emergent leadership in creative problem solving and production groups. *Nonlinear Dynamics Psychology and Life Sciences*, 9(3), 297-334.
- Guerra, J. M., Martínez, I., Munduate, L., & Medina, F. J. (2005). A contingency perspective on the study of the consequences of conflict types: The role of organizational culture. *European Journal of Work and Organizational Psychology*, 14(2), 157-176.
- Guetzkow, H., & Gyr, J. (1954). An analysis of conflict in decision-making groups. *Human Relations*, 7(3), 367-382.
- Gunderson, L. H., & Holling, C. S. (Eds.). (2002). *Panarchy: Understanding transformations in human and natural systems*. Washington, DC: Island Press.
- Guzzo, R. A., Wagner, D. B., Maguire, E., Herr, B., & Hawley, C. (1986). Implicit theories and the evaluation of group process and performance. *Organizational Behavior and Human Decision Processes*, 37(2), 279-295.
- Guzzo, R. A., Yost, P. R., Campbell, R. J., & Shea, G. P. (1993). Potency in groups: Articulating a construct. *British Journal of Social Psychology*, 32(1), 87-106.
- Hacker, W. (1985). Activity: A fruitful concept in industrial psychology. In M. Frese & J. Sabini (Eds.), *Goal directed behaviour* (pp. 262-285). Hillsdale, NJ: Lawrence Erlbaum.
- Hacker, W. (2003). Action regulation theory: A practical tool for the design of modern work processes? *European Journal of Work and Organizational Psychology*, 12(2), 105-130.
- Hackman, J. R. (1987). The design of work teams. In J. W. Lorsch (Ed.), *Handbook of organizational behavior* (pp. 315-342). Englewood Cliffs, NJ: Prentice-Hall.
- Hackman, J. R. (1990a). Creating more effective work groups in organizations. In J. R. Hackman (Ed.), *Groups that work (and those that don't): Creating conditions for effective teamwork* (pp. 479-502). San Francisco: Jossey-Bass.
- Hackman, J. R. (1990b). *Groups that work (and those that don't): Creating conditions for effective teamwork*. San Francisco: Jossey-Bass.
- Hackman, J. R. (2012). From causes to conditions in group research. *Journal of Organizational Behavior*, 33, 428-444.
- Hackman, J. R. (Ed.) (1990c). *Groups that work (and those that don't)*. San Francisco: Jossey-Bass.

- Hackman, J. R., & Edmondson, A. C. (2008). Groups as agents of change. In T. G. Cummings (Ed.), *Handbook of organization development* (pp. 167-187). University of Southern, CA: Sage, Inc.
- Hackman, J. R., & Morris, C. G. (1975). Group tasks, group interaction process, and group performance effectiveness: A review and proposed integration. In B. L. (Ed.), *Advances in experimental social psychology* (Vol. 8, pp. 1-55). New York: Academic Press.
- Hackman, J. R., Wageman, R., Ruddy, T. M., & Ray, C. R. (2000). Team effectiveness in theory and practice. In C. Cooper & E. A. Locke (Eds.), *Industrial and organizational psychology: Theory and practice* (pp. 109-129). Oxford, UK: Blackwell.
- Haken, H. (1978). *Synergetics : An introduction: Nonequilibrium phase transitions and self-organization in physics, chemistry, and biology*. New York: Springer-Verlag.
- Haken, H. (2006). *Information and self-organization: A macroscopic approach to complex systems*. New York: Springer.
- Hall, C., Ickes, W., Knight, D. P., Lyall, L. M., Primeau, B. E., Stiles, W. B., & Waung, M. (1997). Gender differences in verbal presumptuousness and attentiveness. *Personality and Social Psychology Bulletin*, 23, 759+.
- Hall, J., Coats, E. J., & LeBeau, L. S. (2005). Nonverbal behavior and the vertical dimension of social relations: A meta-analysis. *Psychological Bulletin*, 131(6), 898-924.
- Hannan, M., & Freeman, J. (1984). Structural inertia and organizational change. *American Sociological Review*, 49(2), 149-164.
- Hare, A. P. (1976). *Handbook of small group research* (2 ed.). New York: Free Press.
- Harms, P. D., Roberts, B. W., & Wood, D. (2007). Who shall lead? An integrative personality approach to the study of the antecedents of status in informal social organizations. *Journal of Research in Personality*, 41(3), 689-699.
- Harrington, B., & Fine, G. A. (2006). Where the action is: Small groups and recent developments in sociological theory. *Small Group Research*, 37(1), 4-19.
- Hastie, R., & Pennington, N. (1991). Cognitive and social processes in decision making. In L. B. Resnick, J. M. Levine, & S. D. Teasley (Eds.), *Perspectives on socially shared cognition* (pp. 308-327). Washington, DC: American Psychological Association.
- Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, 77(1), 81-112.
- Haydu, J. (1998). Making use of the past: Time periods as cases to compare and as sequences of problem solving. *American Journal of Sociology*, 104(2), 339-371.
- Hayes, R., & Oppenheim, R. (1997). Constructivism: Reality is what you make it. In T. Sexton & B. Griffin (Eds.), *Constructivist thinking in Counseling practice, research and training*. New York: Teachers College Press.

- Hechter, M. (1987). *Principles of group solidarity*. Berkeley: University of California Press.
- Heider, F. (1958). *The psychology of interpersonal relations*. Hillsdale, NJ: Erlbaum.
- Heine, S. J., Lehman, D. R., Peng, K., & Greenholtz, J. (2002). What's wrong with cross-cultural comparisons of subjective Likert scales?: The reference-group effect. *Journal of Personality and Social Psychology*, 82(6), 903-918.
- Heiner, R. A. (1983). The origin of predictable behavior. *The American Economic Review*, 73(4), 560-595.
- Henman, L. D. (2003). Groups as systems: A functional perspective. In R. Y. Hirokawa, R. S. Cathcart, L. A. Samovar, & L. D. Henman (Eds.), *Small group communication: Theory and practice: Anthology* (8 ed., pp. 3-7). Los Angeles, CA: Roxbury Pub. Co.
- Henry, K. B., Arrow, H., & Carini, B. (1999). A tripartite model of group identification: Theory and measurement. *Small Group Research*, 30(5), 558-581.
- Henwood, K., & Pidgeon, N. (1997). Using grounded theory in psychological research. In N. Hayes (Ed.), *Doing qualitative analysis in psychology* (pp. 245-273). Hove, UK: Psychology Press.
- Hersey, P., Blanchard, K. H., & Johnson, D. E. (2014). *Management of organizational behavior: leading human resources*. Delhi PHI Learning Private Ltd.
- Higgins, C. A., Judge, T. A., & Ferris, G. R. (2003). Influence tactics and work outcomes: A meta-analysis. *Journal of Organizational Behavior*, 24(1), 89-106.
- Hill, W. F., & Gruner, L. (1973). A study of development in open and closed groups. *Small Group Research*, 4(3), 355-381.
- Hinsz, V. B. (1990). Cognitive and consensus processes in group recognition memory performance. *Journal of Personality and Social Psychology*, 59(4), 705-718.
- Hinsz, V. B., Tindale, R. S., & Vollrath, D. A. (1997). The emerging conceptualization of groups as information processors. *Psychological Bulletin*, 121(1), 43-64.
- Hinsz, V. B., Tindale, S. R., & Nagao, D. H. (2008). Accentuation of information processes and biases in group judgments integrating base-rate and case-specific information. *Journal of Experimental Social Psychology*, 44(1), 116-126.
- Hitt, M. A. (1998). Presidential Address: Twenty-First-Century Organizations: Business Firms, Business Schools, and the Academy. *The Academy of Management Review*, 23(2), 218-224. doi:10.2307/259371
- Hoel, H., Einarsen, S., & Cooper, C. L. (2003). Organisational effects of bullying. In S. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying and emotional abuse in the workplace: International perspectives in research and practice* (pp. 145-161). New York: Taylor & Francis.

- Hoffman, L. R., Harburg, E., & Maier, N. R. F. (1962). Differences and disagreement as factors in creative group problem solving. *Journal of Abnormal and Social Psychology, 64*(3), 206-214.
- Hofstede, G. H. (2001). *Culture's consequences : Comparing values, behaviors, institutions, and organizations across nations*. Thousand Oaks, CA: Sage.
- Hogg, M. (1987). Social identity and group cohesiveness. In J. C. Turner, M. A. Hogg, P. J. Oakes, S. D. Reicher, & M. Wetherall (Eds.), *Rediscovering social group: A self-categorization theory* (pp. 89-116). Oxford, UK: Basil Blackwell.
- Hogg, M. (1992). *The social psychology of group cohesiveness: From attraction to social identity*. New York: New York University Press.
- Hogg, M. (2000). Social identity and social comparison. In J. M. Suls & L. Wheeler (Eds.), *Handbook of social comparison: Theory and research*. New York: Kluwer Academic/Plenum Publishers.
- Hogg, M. (2001a). Social categorization, depersonalization, and group behavior. In M. A. Hogg & S. Tindale (Eds.), *Blackwell handbook of social psychology: Group processes* (pp. 56-85). Malden, MA: Blackwell.
- Hogg, M. (2001b). Social identity and the sovereignty of the group: A psychology of belonging. In C. Sedikides & M. B. Brewer (Eds.), *Individual self, relational self, collective self* (pp. 123-143). Philadelphia: Psychology Press.
- Hogg, M. (2005). The social identity perspective. In S. A. Wheelan (Ed.), *The handbook of group research and practice* (pp. 133-159). Thousand Oaks, CA: Sage Publications, Inc.
- Hogg, M., & Abrams, D. (1988). *Social identifications a social psychology of intergroup relations and group processes*. New York: Routledge.
- Hogg, M., & Abrams, D. (2007). Intergroup behavior and social identity. In M. A. Hogg & J. Cooper (Eds.), *The Sage handbook of social psychology: Concise student edition* (pp. 335-360). London: Sage.
- Hogg, M., & Tindale, R. S. (2008). Observation and analysis of group interaction over time: Some methodological and strategic choices. In J. E. McGrath & T. W. Altermatt (Eds.), *Blackwell handbook of social psychology: Group processes* (pp. 525-556). New York: Wiley-Blackwell.
- Hogg, M., & Turner, J. C. (1987). Social identity and conformity: A theory of referent informational influence. In W. Doise & S. Moscovici (Eds.), *Current issues in European social psychology* (Vol. 2, pp. 139-182). Cambridge, UK: Cambridge University Press.
- Holland, J. (1975). *Adaptation in natural and artificial systems: An introductory analysis with applications to biology, control, and artificial intelligence*. Ann Arbor: University of Michigan Press.
- Holland, J. (1992). *Adaptation in natural and artificial systems: An introductory analysis with applications to biology, control, and artificial intelligence* (2 ed.). Cambridge, MA: MIT Press.

- Holland, J. (1994). Echoing emergence: Objectives, rough definitions, and speculations for ECHO-class models. In G. Cowan, D. Pines, & D. Meltzer (Eds.), *Santa Fe Institute studies in the sciences of complexity: Metaphors, models, and reality* (Vol. 17, pp. 309-342). Reading, MA: Addison Wesley.
- Holland, J. (1995). *Hidden order: How adaptation builds complexity*. Reading, MA: Addison Wesley Longman Publishing Co., Inc.
- Hollenbeck, J. R., Colquitt, J. A., Ilgen, D. R., LePine, J. A., & Hedlund, J. (1998). Accuracy decomposition and team decision making: Testing theoretical boundary conditions. *Journal of Applied Psychology, 83*(3), 494-500.
- Holling, C. S. (2004). From complex regions to complex worlds. *Ecology and Society, 9*(1).
- Holstein, J. A., & Gubrium, J. F. (Eds.). (2007). *Handbook of constructionist research*. New York: Guilford Press.
- Homans, G. (1974). *Social behavior: Its elementary forms* (R. K. Merton Ed. Revised ed.). New York: Harcourt Brace & World.
- Howard, A. (1995). A framework for work change. In A. Howard (Ed.), *The changing nature of work* (pp. 3-44). San Francisco: Jossey-Bass.
- Huber, G. P., & Lewis, K. (2010). Cross-understanding: Implications for group cognition and performance. *Academy of Management Review, 35*(1), 6-26.
- Huberman, B. A. (1992). The adaptation of complex systems. In B. Goodwin & P. Saunders (Eds.), *Theoretical biology: Epigenetic and evolutionary order from complex systems* (pp. 124-133). Baltimore, MD: Johns Hopkins University Press.
- Huberman, B. A., & Glance, N. S. (1993). Diversity and collective action. In H. Haken & A. S. Mikhailov (Eds.), *Interdisciplinary approaches to nonlinear complex systems* (pp. 44-63). New York: Springer-Verlag.
- Huberman, B. A., & Hogg, T. (1995). Communities of practice: Performance and evolution. *Computational and Mathematical Organization Theory, 1*(1), 73-92.
- Humphrey, S. E., Hollenbeck, J. R., Meyer, C. J., & Ilgen, D. R. (2007). Trait configurations in self-managed teams: A conceptual examination of the use of seeding for maximizing and minimizing trait variance in teams. *Journal of Applied Psychology, 92*(3), 885-892.
- Ickes, W., & Gonzalez, R. (1994). "Social" cognition and social cognition: From the subjective to the intersubjective. *Small Group Research, 25*(2), 294-315.
- Ilgen, D. R. (1999). Teams embedded in organizations: Some implications. *American Psychologist, 54*(2), 129-139.
- Ilgen, D. R., Hollenbeck, J. R., Johnson, M., & Jundt, D. (2005). Teams in organizations: From input-process-output models to imoi models. *Annual Review of Psychology, 56*(1), 517-543.

- Insko, C. A., & Schopler, J. (1987). Categorization, competition, and collectivity. In C. Hendrick (Ed.), *Review of Personality and Social Psychology* (Vol. 8, pp. 213-251). Newbury Park, CA: Sage.
- Jacobs, R. C., & Campbell, D. T. (1964). The perpetuation of an arbitrary tradition through several generations of a laboratory microculture. *Journal of Abnormal and Social Psychology, 62*(3), 649-658.
- Jacobsen, C., & Law-Yolle, H. (1983). *Sociology and System Dynamics*. Paper presented at the International System Dynamics Conference, Pine Manor College, Boston.
- Janis, I. L. (1972). *Victims of groupthink: A psychological study of foreign-policy decisions and fiascoes*. Oxford, UK: Houghton Mifflin.
- Janis, I. L. (1982). *Groupthink: Psychological studies of policy decisions and fiascoes* (2 ed.). New York: Houghton Mifflin.
- Janis, I. L. (1989). *Crucial Decisions: Leadership in Policy making and Crisis Management*. New York: The Free Press.
- Jehn, K. A. (1995). A multi method examination of the benefits and detriments of intragroup conflict. *Administrative Science Quarterly, 40*(2), 256-282.
- Jehn, K. A. (1997a). The effect of value-based conflict on group performance and satisfaction: Can we be both productive and happy? In C. d. Dreu & E. v. d. Vliert (Eds.), *Optimizing performance by stimulating conflict: Fundamental issues for groups and organizations* (pp. 87-100). Thousand Oaks, CA: Sage.
- Jehn, K. A. (1997b). A qualitative analysis of conflict types and dimensions in organizational groups. *Administrative Science Quarterly, 42*(3), 530-557.
- Jehn, K. A., & Bendersky, C. (2003). Intragroup conflict in organizations: A contingency perspective on the conflict-outcome relationship. In B. Staw & R. M. Kramer (Eds.), *Research in organizational behavior: An annual series of analytical essays and critical reviews* (Vol. 25, pp. 187-242). Amsterdam; Oxford: Elsevier JAI.
- Jehn, K. A., Greer, L., Levine, S., & Szulanski, G. (2008). The effects of conflict types, dimensions, and emergent states on group outcomes. *Group Decision and Negotiation, 17*(6), 465-495.
- Jehn, K. A., & Mannix, E. A. (2001). The dynamic nature of conflict: A longitudinal study of intragroup conflict and group performance. *Academy of Management Journal, 44*(2), 238-251.
- Jehn, K. A., Northcraft, G. B., & Neale, M. A. (1999). Why differences make a difference: A field study of diversity, conflict, and performance in workgroups. *Administrative Science Quarterly, 44*(4), 741.
- Johns, G. (1996). Social behaviour and organizational processes. In *Organizational behaviour: Understanding and managing life at work* (pp. 1 - 10). Montreal, QU: Harper Collins College Publishers.

- Jonason, P. K., & Webster, G. D. (2012). A protean approach to social influence: Dark Triad personalities and social influence tactics. *Personality and Individual Differences, 52*(4), 521-526.
- Kahneman, D. (2003). Maps of bounded rationality psychology for behavioural economics. *American Economic Review, 93*(5), 1449-1475.
- Kahneman, D., & Tversky, A. (1973). On the psychology of prediction. *Psychological Review, 80*(4), 237-251.
- Kameda, T., & Davis, J. H. (1990). The function of the reference point in individual and group risk decision making. *Organizational Behavior and Human Decision Processes, 46*(1), 55-76.
- Kameda, T., Tindale, R. S., & Davis, J. H. (2003). Cognitions, preferences, and social sharedness: Past, present, and future directions in group decision making. In *Emerging perspectives on judgment and decision research* (pp. 458-485). Cambridge: Cambridge University Press.
- Kanfer, R. (1990). Motivation theory and industrial/organizational psychology. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology: Theory in industrial and organizational psychology* (Vol. 1, pp. 75-170). Palo Alto Ca.: Consulting Psychologists Press.
- Kanfer, R., & Ackerman, P. L. (1989). Motivation and cognitive abilities: An integrative / aptitude-treatment interaction approach to skill acquisition. *Journal of Applied Psychology, 74*(4), 657-690.
- Kaplan, M. F., & Miller, C. E. (1987). Group decision making and normative versus informational influence: Effects of type of issue and assigned decision rule. *Journal of Personality and Social Psychology, 53*(2), 306-313.
- Kaplan, M. F., Schaefer, E. G., & Zinkiewicz, L. (1994). Member preferences for discussion content in anticipated group decisions: Effects of type of issue and group interactive goal. *Basic and Applied Social Psychology, 15*(4), 489-508.
- Karau, S. J., & Kelly, J. R. (1992). The effects of time scarcity and time abundance on group performance quality and interaction process. *Journal of Experimental Social Psychology, 28*(6), 542-571.
- Karoly, P. (1993). Mechanisms of self-regulation: A systems view. *Annual Review of Psychology, 44*(1), 23.
- Katz, D., & Kahn, R. (1978). *The social psychology of organizations* (2 ed.). New York: John Wiley.
- Katz, D., & Kahn, R. L. (1966). *The social psychology of organizations*. New York: John Wiley.
- Katz, N., Lazer, D., Arrow, H., & Contractor, N. (2004). Network theory and small groups. *Small Group Research, 35*(3), 307-332.
- Katzenbach, J. R., & Smith, D. K. (2015). *The wisdom of teams: Creating the high-performance organization*. Boston, MA: Harvard Business Review Press.

- Katzenstein, P. (1993). Coping with terrorism: Norms and internal security in Germany and Japan. In J. Goldstein & R. O. Keohane (Eds.), *Ideas and foreign policy: Beliefs, institutions, and political change* (pp. 265-295). Ithaca, NY: Cornell University Press.
- Kauffman, S. (1993). *The origins of order: Self-organization and selection in evolution*. New York: Oxford University Press.
- Kay, J. J., Regier, H. A., Boyle, M., & Francis, G. (1999). An ecosystem approach for sustainability: Addressing the challenge of complexity. *Futures*, 31(7), 721-742.
- Kellermanns, F. W., Floyd, S. W., Pearson, A. W., & Spencer, B. (2008). The contingent effect of constructive confrontation on the relationship between shared mental models and decision quality. *Journal of Organizational Behavior*, 29(1), 119-137.
- Kelley, H. (1952). Two functions of reference groups. In G. Swanson, T. Newcomb, & E. Hartley (Eds.), *Society for the psychological study of social issues: Readings in social psychology* (pp. 410-414). New York: Holt.
- Kelley, J., & Karau, S. J. (1999). Group decision making: The effects of initial preferences and time pressure. *Personality and Social Psychology Bulletin*, 25(11), 1342-1354.
- Kelly, J., Jackson, J. W., & Hutson-Comeaux, S. L. (1997). The effects of time pressure and task differences on influence modes and accuracy in decision-making groups. *Personality and Social Psychology Bulletin*, 23(1), 10-22.
- Kelly, K. (1994). *Out of control: The rise of neo-biological civilization*. Reading, MA: Addison-Wesley.
- Kelso, J. (1995). Dynamic patterns: The self-organization of brain and behavior. *European Journal of immunology*.
- Kelso, J. (2000). How nature handles complexity. In *Dynamic patterns: The self-organization of brain and behavior* (pp. 1-28). Cambridge, MA: MIT Press.
- Kelso, J., & Ding, M. (1993). Fluctuations, intermittency, and controllable chaos in biological coordination. In K. M. Newell & D. M. Corcos (Eds.), *Variability and motor control* (pp. 291-316). Champaign, IL: Human Kinetics.
- Kerr, N., & Tindale, R. S. (2004). Group performance and decision making. *Annual Review of Psychology*, 55(1), 623-655.
- Kets de Vries, M. F. R. (2005). Leadership group coaching in action: The Zen of creating high performance teams. *Academy of Management Executive*, 19(1), 61-76.
- Kiser, E. (1996). The revival of narrative in historical sociology: What rational choice theory can contribute. *Politics and Society*, 24(3), 249-271.
- Kiser, E., & Hechter, M. (1991). The role of general theory in comparative-historical sociology. *American Journal of Sociology*, 97(1), 1-30.

- Klimoski, R., & Mohammed, S. (1994). Team mental model - construct or metaphor. *Journal of Management*, *20*(2), 403-437.
- Kluger, A. N., & DeNisi, A. (1996). The effects of feedback interventions on performance: A historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin*, *119*(2), 254-284.
- Kohut, H., Goldberg, A., & Stepansky, P. E. (1984). *How does analysis cure?* Chicago, IL: University of Chicago Press.
- Kono, K., & Antonucci, D. (2006). Sustainability of cross-functional teams for marketing strategy development and implementation. *Health Care Manager*, *25*(3), 267-276 210p.
- Korsgaard, M., Soyoung, J., Mahony, D., & Pitariu, A. (2008). A multilevel view of intragroup conflict. *Journal of Management*, *34*(6), 1222-1252.
- Kowalski, A. A., & Jenkins, L. D. (2015). The role of bridging organizations in environmental management: examining social networks in working groups. *Ecology and Society*, *20*(2).
- Kozlowski, S. W., & Bell, B. S. (2003). Work groups and teams in organizations. In W. C. Borman, D. R. Ilgen, & R. J. Klimoski (Eds.), *Handbook of psychology* (Vol. 12, pp. 333-375). New York: Wiley.
- Kozlowski, S. W., Gully, S. M., Nason, E. R., & Smith, E. M. (1999). Developing adaptive teams: A theory of compilation and performance across levels and time. In D. R. Ilgen & E. D. Pulakos (Eds.), *The changing nature of performance: Implications for staffing, motivation, and development* (pp. 240–292). San Francisco, CA: Jossey-Bass.
- Kozlowski, S. W., & Ilgen, D. R. (2006). Enhancing the effectiveness of work groups and teams. *Psychological Science in the Public Interest*, *7*(3), 77-124.
- Kozlowski, S. W., Watola, D. J., Jensen, J. M., Kim, B. H., & Botero, I. C. (2009). Developing adaptive teams: A theory of dynamic team leadership. In E. Salas, G. F. Goodwin, & C. S. Burke (Eds.), *Team effectiveness in complex organizations: Cross-disciplinary perspectives and approaches* (pp. 133-157). New York: Routledge.
- Krackhardt, D. (1999). The ties that torture: Simmelian tie analysis in organizations. *Research in the Sociology of Organizations*, *16*, 183–210.
- Kwok, C.-K., Au, W. T., & Ho, J. M. C. (2005). Normative controls and self-reported counterproductive behaviors in the workplace in china. *Applied Psychology*, *54*(4), 456-475.
- Laitinen, E. K. (2009). Importance of performance information in managerial work. *Industrial Management and Data Systems*, *109*(4), 550-569.
- Langer, E. J., & Dunne, B. (2015). *Mindfulness 25th Anniversary Edition*. Cambridge: Ingram.
- Langfred, C. W. (2000). The paradox of self-management: Individual and group autonomy in work groups. *Journal of Organizational Behavior*, *21*(5), 563-585.

- Langton, C. G. (1996). A dynamical pattern. In J. Brockman (Ed.), *The third culture: Beyond the scientific revolution* (pp. 344-358). New York: Simon & Schuster.
- Larson, J. R., Foster-Fishman, P. G., & Keys, C. B. (1994). Discussion of shared and unshared information in decision-making groups. *Journal of Personality and Social Psychology*, 67(3), 446-461.
- Latane, B., & Nowak, A. (1994). Attitudes as catastrophes: From dimensions to categories with increasing involvement. In R. R. Vallacher & A. Nowak (Eds.), *Dynamical systems in social psychology* (pp. 219-249). New York: Academic Press.
- Latane, B., Nowak, A., & Liu, J. (1994). Measuring emergent social phenomena: Dynamism, polarization, and clustering as order parameters. *Behavioral science*, 39(1), 1-24.
- Laughlin, P. R. (1980). Social combination processes in cooperative problem-solving groups on verbal intellectual tasks. In M. Fishbein (Ed.), *Progress in social psychology* (Vol. 1, pp. 127-155). Hillsdale, NJ: Erlbaum.
- Laughlin, P. R., & Ellis, A. L. (1986). Demonstrability and social combination processes on mathematical intellectual tasks. *Journal of Experimental Social Psychology*, 22(3), 177-189.
- Laughlin, P. R., & Shupe, E. I. (1996). Intergroup collective induction. *Organizational Behavior and Human Decision Processes*, 68(1), 44-57.
- Laughlin, P. R., VanderStoep, S. W., & Hollingshead, A. B. (1991). Collective versus individual induction: Recognition of truth, rejection of error, and collective information processing. *Journal of Personality and Social Psychology*, 61(1), 50-67.
- Lawler, E. J., Thye, S. R., & Yoon, J. (2000). Emotion and group cohesion in productive exchange. *American Journal of Sociology*, 106(3), 616-657.
- Lawler, E. J., Thye, S. R., & Yoon, J. (2008). Social exchange and micro social order. *American Sociological Review*, 73(4), 519-542.
- Lawrence-Lightfoot, S., & Davis, J. H. (1997). *The art and science of portraiture*. San Francisco: Jossey-Bass.
- Le Bon, G. (1896). *The crowd: A study of the popular mind*. Kitchener: Batoche Books.
- Lee, I.-C., Pratto, F., & Johnson, B. T. (2011). Intergroup consensus/disagreement in support of group-based hierarchy: An examination of socio-structural and psycho-cultural factors. *Psychological Bulletin*, 137(6), 1029-1064.
- Leech, N. L., & Onwuegbuzie, A. J. (2007). An array of qualitative data analysis tools: A call for data analysis triangulation. *School Psychology Quarterly*, 22(4), 557-584.
- LePine, J. A. (2005). Adaptation of teams in response to unforeseen change: Effects of goal difficulty and team composition in terms of cognitive ability and goal orientation. *Journal of Applied Psychology*, 90(6), 1153-1167.

- Levi, D. (2014). *Group dynamics for teams*. Los Angeles, CA: Sage.
- Levine, J., Moreland, R., & Ryan, C. S. (1998). Group socialization and intergroup relations. In C. Sedikides, J. Schopler, & C. A. Insko (Eds.), *Intergroup cognition and intergroup behavior* (pp. 283-308). Mahwah, NJ: Lawrence Erlbaum Associates.
- Levine, J., & Moreland, R. L. (1990). Progress in small group research. *Annual Review of Psychology*, 41(1), 585-634.
- Levine, J., & Moreland, R. L. (1994). Group socialization: Theory and research. *European Review of Social Psychology*, 5(1), 305-336.
- Levine, J., & Moreland, R. L. (1998). Small groups. In D. Gilbert, S. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (Vol. 2, pp. 415-469). Boston, MA: McGraw-Hill.
- Levine, J., Moreland, R. L., & Choi, H.-S. (2001). Group socialization and newcomer innovation. In M. Hogg & R. Tindale (Eds.), *Blackwell handbook of social psychology: Group processes* (pp. 86-106). Malden, MA: Blackwell Publishers.
- Levine, J., & Resnick, L. B. (1993). Social foundations of cognition. *Annual Review of Psychology*, 44(1), 585.
- Levinthal, D. (1992). Surviving Schumpeterian environments: An evolutionary perspective. *Industrial and Corporate Change*, 1(3), 427-443.
- Levinthal, D. (1997). Adaptation on rugged landscapes. *Management Science*, 43(7), 934.
- Levinthal, D., & Posen, H. E. (2007). Myopia of selection: Does organizational adaptation limit the efficacy of population selection? *Administrative Science Quarterly*, 52(4), 586-620.
- Levinthal, D., & Siggelkow, N. (2001). *Linking the old and the new: Modular and integrated adaptation to the internet*. Working Paper. Wharton School, University of Pennsylvania.
- Levinthal, D., & Warglien, M. (1999). Landscape design: Designing for local action in complex worlds. *Organization Science*, 10(3), 342-357.
- Levy, P. (2003). A methodological framework for practice based research in networked learning. *Instructional Science*, 31, 87-109.
- Lewin, A., Long, C. P., & Carroll, T. N. (1999). The coevolution of new organizational forms. *Organization Science*, 10(5), 535-550.
- Lewin, K. (1948). Resolving social conflict: Selected papers on group dynamics. *New York Harper*.
- Lewin, K. (1951). Field theory in social science. *New York Harper*.
- Lewis, M., Zimmerman, S., Hollenstein, T., & Lamey, A. V. (2004). Reorganization in coping behavior at 1½ years: dynamic systems and normative change. *Developmental Science*, 7(1), 56-73.

- Lewis, R. (1994). From chaos to complexity: Implications for organizations. *Executive Development, 7*(4), 16-17.
- Lichtenstein, B. B. (2000). Emergence as a process of self-organizing: New assumptions and insights from the study of non-linear dynamic systems. *Journal of Organizational Change Management, 13*(6), 526-544.
- Lichtenstein, B. B., & McKelvey, B. (2011). Four types of emergence: A typology of complexity and its implications for a science of management. *International Journal of Complexity in Leadership and Management, 1*(4), 339-378.
- Lim, B.-C., & Klein, K. J. (2006). Team mental models and team performance: A field study of the effects of team mental model similarity and accuracy. *Journal of Organizational Behavior, 27*(4), 403-418.
- Limon, M. S., & Boster, F. J. (2003). The effects of performance feedback on group members' perceptions of prestige, task competencies, group belonging, and loafing. *Communication Research Reports, 20*(1), 13-23.
- Littlepage, G., Robison, W., & Reddington, K. (1997). Effects of task experience and group experience on group performance, member ability, and recognition of expertise. *Organizational Behavior and Human Decision Processes, 69*(2), 133-147.
- Lizardo, O. (2007). Relational cohesion theory. In G. Ritzer (Ed.), *The Blackwell encyclopedia of sociology* (Vol. 9, pp. 3845-3848). Malden, MA: Blackwell Publishing.
- Locke, K. (2001). *Grounded theory in management research*. London: Sage.
- Lomi, A., & Larsen, E. R. (1996). Interacting locally and evolving globally: A computational approach to the dynamics of organizational populations. *Academy of Management Journal, 39*(5), 1287-1321.
- Lott, A. J., & Lott, B. E. (1961). Group cohesiveness, communication level, and conformity. *Journal of Abnormal and Social Psychology, 62*(2), 408-412.
- Lott, A. J., & Lott, B. E. (1965). Group cohesiveness as interpersonal attraction: A review of relationships with antecedent and consequent variables. *Psychological Bulletin, 64*(4), 259-309.
- Lundgren, D. C., Knight, D. J., & Banet, A. G. (1978). Sequential stages of development in sensitivity training groups. *The Journal of Applied Behavioral Science, 14*(2), 204-222.
- Mabry, E. A., & Barnes, R. E. (1980). *The dynamics of small group communication*. Englewood Cliffs, NJ: Prentice-Hall.
- MacCoun, R. J., Kier, E., & Belkin, A. (2006). Does social cohesion determine motivation in combat?: An old question with an old answer. *Armed Forces AND Society, 32*(4), 646-654.
- Macintosh, R., & Maclean, D. (1999). Conditioned emergence: A dissipative structures approach to transformation. *Strategic Management Journal, 20*(4), 297-316.

- MacNeil, M. K., & Sherif, M. (1976). Norm change over subject generations as a function of arbitrariness of prescribed norms. *Journal of Personality and Social Psychology, 34*(5), 762-773.
- Mann, R., Gibbard, G., & Hartman, J. (1967). *Interpersonal style and group development*. New York: John Wiley.
- Manz, C. C. (1992). Self-leading work teams: Moving beyond self-management myths. *Human Relations, 45*(11), 1119-1140.
- Manz, C. C., & Sims, H. P. (1987). Leading workers to lead themselves: The external leadership of self-managing work teams. *Administrative Science Quarterly, 32*(1), 106-129.
- Maquire, S., McKelvey, B., Mirabeau, L., & Oztas, N. (2010). Complexity science and organization studies. In S. R. Clegg, C. Hardy, T. B. Lawrence, & W. R. Nord (Eds.), *The Sage handbook of organization studies* (2 ed., pp. 165-214). Los Angeles: Sage Publications.
- March, J. G., & Heath, C. (1994). *A primer on decision making: How decisions happen*. New York: Free Press.
- March, J. G., & Sutton, R. I. (1997). Organizational performance as a dependent variable. *Organization Science, 8*(6), 698-706.
- Marion, R., & Uhl-Bien, M. (2011). Implications of complexity science for the study of leadership. In P. Allen, S. Maguire, & B. McKelvey (Eds.), *The Sage handbook of complexity and management* (pp. 385-399). London: Sage.
- Marks, M. A., Zaccaro, S. J., & Mathieu, J. E. (2000). Performance implications of leader briefings and team-interaction training for team adaptation to novel environments. *Journal of Applied Psychology, 85*(6), 971-986.
- Marx, K., & Engels, F. (1951). *Communist manifesto*. Moscow: Foreign Languages Publishing House.
- Mason, C., & Griffin, M. A. (2005). Group task satisfaction: The group's shared attitude to its task and work environment. *Group Organization Management, 30*(6), 625-652.
- Mason, W., Conrey, F., & Smith, E. (2007). Situating social influence processes: Dynamic, multidirectional flows of influence within social networks. *Personality and Social Psychology Review, 11*(3), 279-300.
- Mathieu, J., Heffner, T. S., Goodwin, G. F., Cannon-Bowers, J. A., & Salas, E. (2005). Scaling the quality of teammates' mental models: Equifinality and normative comparisons. *Journal of Organizational Behavior, 26*(1), 37-56.
- Mathieu, J., Heffner, T. S., Goodwin, G. F., Salas, E., & Cannon-Bowers, J. A. (2000). The influence of shared mental models on team process and performance. *Journal of Applied Psychology, 85*(2), 273-283.
- Mathieu, J., Maynard, M. T., Rapp, T., & Gilson, L. (2008). Team effectiveness 1997-2007: A review of recent advancements and a glimpse into the future. *Journal of Management, 34*(3), 410-476.

- MAXQDA 11 Plus. (2015). MAXQDA, software for qualitative data analysis. (Version 11). Berlin: VERBI Software - Consult - Sozialforschung GmbH.
- Mayhew, B. H. (1980). Structuralism versus individualism: Part 1 , shadowboxing in the dark. *Social Forces*, 59(2), 335-375.
- Mayhew, B. H. (1981). Structuralism versus individualism: Part II, ideological and other obfuscations. *Social Forces*, 59(3), 627.
- McClelland, D. C., & Boyatzis, R. E. (1982). Leadership motive pattern and long-term success in management. *Journal of Applied Psychology*, 67(6), 737-743.
- McCullom, M. (1995). Reevaluating group development: A critique of familiar models. In J. Gillette & M. McCullom (Eds.), *Groups in context: A new perspective on group dynamics* (pp. 133-154). Lanham, MD: University Press of America.
- McGrath, J. E. (1964). *Social psychology: A brief introduction*. New York, NY: Holt.
- McGrath, J. E. (1984). *Groups: Interaction and performance*. Englewood Cliffs, NJ: Prentice-Hall.
- McGrath, J. E. (1991). Time, interaction, and performance (TIP): A theory of groups. *Small Group Research*, 22(2), 147-174.
- McGrath, J. E. (1997). Small group research, that once and future field: An interpretation of the past with an eye to the future. *Group Dynamics: Theory, Research, and Practice*, 1(1), 7-27.
- McGrath, J. E., & Altman, I. (1966). *Small group research: A synthesis and critique of the field*. New York, NY: Holt.
- McGrath, J. E., & Argote, L. (2001). Group processes in organizational contexts. In M. Hogg & R. Tindale (Eds.), *Blackwell handbook of social psychology: Group processes* (Vol. 3, pp. 603-627). Malden, MA: Blackwell Publishers.
- McGrath, J. E., Arrow, H., & Berdahl, J. L. (2000). The study of groups: Past, present, and future. *Personality and Social Psychology Review*, 4(1), 95-105.
- McGrath, J. E., Berdahl, J. L., & Arrow, H. (1996). Traits, expectations, culture and clout: The dynamics of diversity in work groups. In S. E. Jackson & M. N. Ruderman (Eds.), *Diversity in work teams: Research paradigms for a changing workplace* (pp. 17-45). Washington, DC: American Psychological Association.
- McGrath, J. E., & Kelly, J. R. (1986). *Time and human interaction: Toward a social psychology of time*. New York: Guilford.
- McGrath, J. E., & Kelly, J. R. (1992). Temporal context and temporal patterning: Toward a time-centered perspective for social psychology. *Time and Society*, 1(3), 399-420.
- McGrath, J. E., & O'Connor, K. M. (1996). Temporal issues in work groups. In M. A. West (Ed.), *Handbook of work group psychology* (pp. 25-52). New York: John Wiley.

- McGrath, J. E., & Tschan, F. (2004). Dynamics in groups and teams: Groups as complex action systems. In M. S. Poole & A. H. Van de Ven (Eds.), *Handbook of organizational change and innovation* (pp. 50-72). New York, NY: Oxford University Press.
- McIntyre, M. H., Li, A. Y., Chapman, J. F., Lipson, S. F., & Ellison, P. T. (2011). Social status, masculinity, and testosterone in young men. *Personality and Individual Differences, 51*(4), 392-396.
- McKelvey, B. (1997). Perspective—quasi-natural organization science. *Organization Science, 8*(4), 351-380.
- McKelvey, B. (2008). Emergent strategy via complexity leadership: Using complexity science and adaptive tension to build distributed intelligence. In M. Uhl-Bien & R. Marion (Eds.), *Complexity leadership, Part 1: Conceptual foundations* (pp. 225–268). Charlotte, NC: Information Age Publishing.
- McPherson, M., & Smith-Lovin, L. (2002). Cohesion and membership duration: Linking groups, relations and individuals in an ecology of affiliation. In S. R. Thye & E. J. Lawler (Eds.), *Group cohesion, trust and solidarity* (pp. 1-36). Amsterdam: JAI.
- Mead, G. H. (1934). *Mind, self and society*. Chicago, IL: Chicago University Press.
- Meadows, D. H., & Robinson, J. M. (1985). *The electronic oracle: Computer models and social decisions*. Chichester; New York: Wiley.
- Mennecke, B. E., Hoffer, J. A., & Wynne, B. E. (1992). The implications of group development and history for group support system theory and practice. *Small Group Research, 23*(4), 524-572.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco: Jossey-Bass Publishers.
- Merry, U. (1995). *Coping with uncertainty: Insights from the new sciences of chaos, self-organization, and complexity*. Westport, CT: Praeger.
- Metlay, W., Kaplan, I. T., & Rogers, E. E. (1994). Self-management in context. In M. M. Beyerlein & D. A. Johnson (Eds.), *Advances in interdisciplinary studies of work teams: Theories of self-managing work teams* (Vol. 1, pp. 167-185). Greenwich, CT: JAI Press.
- Mezirow, J. (1991). How critical reflection triggers transformative learning. In *Fostering critical reflection in adulthood: a guide to transformative and emancipatory learning* (pp. 1-6). San Francisco: Jossey-Bass.
- Michael, D. (2012). The journal (Version 7). Retrieved from <http://www.davidrm.com/thejournal/>
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2 ed.). Thousand Oaks, CA: Sage.
- Miller, D., & Friesen, P. H. (1980). Momentum and revolution in organizational adaptation. *Academy of Management Journal, 23*, 591-614.

- Miller, D., & Friesen, P. H. (1982). Structural change and performance: Quantum versus piecemeal-incremental approaches. *Academy of Management Journal*, 25(4), 867-892.
- Miller, D., Friesen, P. H., & Mintzberg, H. (1984). *Organizations: A quantum view*. Englewood Cliffs, NJ: Prentice-Hall.
- Miller, D., & Ross, M. (1975). Self-serving biases in the attribution of causality: Fact or fiction? *Psychological Bulletin*, 82(2), 213-225.
- Mills, J., Bonner, A., & Francis, K. (2006). The development of constructivist grounded theory. *International Journal of Qualitative Methods*, 5(1), 1-11.
- Mills, T. M. (1958). Some hypotheses on small groups from Simmel. *American Journal of Sociology*, 63(6), 642-650.
- Minichiello, V., Aroni, R., & Hays, T. (2008). *In-depth interviewing: Principles, techniques, analysis* (3 ed.). Melbourne, VIC: Longman Cheshire.
- Molleman, E. (2000). Modalities of self-managing teams – The “must”, “may”, “can” and “will” of local decision making. *International Journal of Operations and Production Management*, 20(8), 889-910.
- Molm, L. D. (1986). Gender, power, and legitimation: A test of three theories. *American Journal of Sociology*, 91(6), 1356-1386.
- Moody, J., & White, D. R. (2003). Structural cohesion and embeddedness: A hierarchical concept of social groups. *American Sociological Review*, 68(1), 103-127.
- Moon, H., Hollenbeck, J. R., Humphrey, S. E., Ilgen, D. R., West, B., Ellis, A. P. J., & Porter, C. O. L. H. (2004). Asymmetric adaptability: Dynamic team structures as one-way streets. *Academy of Management Journal*, 47(5), 681-695.
- Moore-Ede, M. C., Sulzman, F. M., & Fuller, C. A. (Eds.). (1982). *The clocks that time us: Physiology of the circadian timing system*. Cambridge, MA: Harvard University Press.
- Moreland, R. L., Hogg, M., & Hains, S. C. (1994). Back to the future: Social psychological research on groups. *Journal of Experimental Social Psychology*, 30(6), 527-555.
- Moreland, R. L., & Levine, J. (1982). Socialization in small groups: Temporal changes in individual-group relations. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (pp. 137-192). New York: Academic.
- Moreland, R. L., & Levine, J. (2002). Socialization and trust in work groups. *Group Processes and Intergroup Relations*, 5(3), 185-201.
- Moreland, R. L., & Levine, J. (2004). Socialization in organizations and work groups. In J. M. Levine & R. L. Moreland (Eds.), *Small groups: Key readings* (pp. 469-498). Hoboken, NJ: Taylor and Francis.
- Morgeson, F. P., & Hofmann, D. A. (1999). The structure and function of collective constructs: Implications for multilevel research and theory development. *Academy of Management Review*, 24(2), 249-265.

- Morin, E. (2007). Restricted complexity, general complexity. In C. Gershenson, D. Aerts, & B. Edmonds (Eds.), *Worldviews, science and us: Philosophy and complexity* (pp. 5-29). New Jersey: World Scientific.
- Morrow, S. L., Rakhsha, G., & Castañeda, C. L. (2001). Qualitative research methods for multicultural counseling. In J. G. Ponterotto, J. M. Casas, L. A. Suzuki, & C. M. Alexander (Eds.), *Handbook of multicultural counseling* (2 ed., pp. 575-603). Thousand Oaks, CA: Sage
- Morse, J. M. (1995). The significance of saturation. *Qualitative Health Research*, 5(2), 147-149.
- Mowday, R. T., & Sutton, R. I. (1993). Organizational behavior: Linking individuals and groups to organizational contexts. *Annual Review of Psychology*, 44(1), 195-229.
- Mullen, B. (1991). Group composition, salience, and cognitive representations: The phenomenology of being in a group. *Journal of Experimental Social Psychology*, 27(4), 297-323.
- Muller, A., Herbig, B., & Petrovic, K. (2009). The explication of implicit team knowledge and its supporting effect on team processes and technical innovations. An action regulation perspective on team reflexivity. *Small Group Research*, 40(1), 28-51.
- Muller, D., Judd, C. M., & Yzerbyt, V. Y. (2005). When moderation is mediated and mediation is moderated. *Journal of Personality and Social Psychology*, 89(6), 852-863.
- Myers, D. (2010). *Social psychology* (10 ed.). New York, NY: McGraw Hill.
- Myers, K. (2005). A burning desire: Assimilation into a fire department. *Management Communication Quarterly*, 18(3), 344-384.
- Myers, K., & Oetzel, J. G. (2003). Exploring the dimensions of organizational assimilation: Creating and validating a measure. *Communication Quarterly*, 51(4), 438-457.
- Nadler, D. A. (1979). The effects of feedback on task group behavior: A review of the experimental research. *Organizational Behavior and Human Performance*, 23(3), 309-338.
- Nagao, D. H., Tindale, R. S., & Hinsz, V. B. (1985). *Individual and group biases to information procession*. Paper presented at the Cognitive factors in small group processes, Los Angeles.
- Naquin, C. E., & Tynan, R. O. (2003). The team halo effect: Why teams are not blamed for their failures. *Journal of Applied Psychology*, 88(2), 332-340.
- Naylor, J. C., Pritchard, R. D., & Ilgen, D. R. (1980). *A theory of behavior in organizations*. New York: Academic Press.
- Nembhard, I. M., & Edmondson, A. C. (2006). Making it safe: The effects of leader inclusiveness and professional status on psychological safety and improvement efforts in health care teams. *Journal of Organizational Behavior*, 27(7), 941-966.

- Nemeth, C. (1986). Differential contributions of majority and minority influence. *Psychological Review*, 93(1), 23-32.
- Nicolis, G. (1995). *Introduction to nonlinear science*. Cambridge: Cambridge University Press.
- Nijstad, B. A., & Paulus, P. B. (2003). Group creativity: Common themes and future directions. In P. B. Paulus & B. A. Nijstad (Eds.), *Group creativity: Innovation through collaboration* (pp. 326-339). New York: Oxford University Press.
- Nisbett, R. E., & Wilson, T. D. (1977). The halo effect: Evidence for unconscious alteration of judgments. *Journal of Personality and Social Psychology*, 35(4), 250-256.
- Nowak, A., & Lewenstein, M. (1994). Dynamical systems: A tool for social psychology. In R. R. Vallacher & A. Nowak (Eds.), *Dynamical systems in social psychology* (pp. 17-54). New York: Academic Press.
- Nowak, A., Lewenstein, M., & Szamrej, J. (1993). Bubbles: A model of social transitions. *Nauki*, 12, 16-25.
- Nowak, A., Szamrej, J., & Latané, B. (1990). From private attitude to public opinion: A dynamic theory of social impact. *Psychological Review*, 97(3), 362-376.
- O'Leary, M. B., & Cummings, J. N. (2007). The spatial, temporal, and configurational characteristics of geographic dispersion in teams. *MIS Quarterly*, 31(3), 433-452.
- O'Reilly, C. A., & Caldwell, D. F. (1985). The impact of normative social influence and cohesiveness on task perceptions and attitudes: A social information processing approach. *Journal of Occupational Psychology*, 58(3), 193-206.
- Oldmeadow, J. (2007). Status generalization in context: The moderating role of groups. *Journal of Experimental Social Psychology*, 43(2), 273-279.
- Oliver, C. (1991). Strategic responses to institutional processes. *Academy of Management Review*, 16(1), 145-179.
- Olson, B. J., Parayitam, S., & Yongjian, B. (2007). Strategic decision making: The effects of cognitive diversity, conflict, and trust on decision outcomes. *Journal of Management*, 33(2), 196-222.
- Olweus, D. (2003). Bully/victim problems in school: Basic facts and an effective intervention programme. In S. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying and emotional abuse in the workplace: International perspectives in research and practice* (pp. 62-78). New York: Taylor & Francis.
- Opp, K.-D. (2001). How do norms emerge? An outline of a theory. *Mind AND Society*, 2(1), 101-128.
- Paese, P. W., Bieser, M., & Tubbs, M. E. (1993). Framing effects and choice shifts in group decision making. *Organizational Behavior and Human Decision Processes*, 56(1), 149-165.

- Parry, E., & Urwin, P. (2011). Generational differences in work values: A review of theory and evidence. *International Journal of Management Reviews*, 13(1), 79-96.
- Parsons, T. (1951). *The social system*. Glencoe, IL: Free Press.
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3 ed.). Thousand Oaks, CA: Sage.
- Pearson, A. W., Ensley, M. D., & Amason, A. C. (2002). An assessment and refinement of Jehn's intragroup conflict scale. *International Journal of Conflict Management*, 13(2), 110-126.
- Pelled, L. H., Eisenhardt, K. M., & Xin, K. R. (1999). Exploring the black box: An analysis of work group diversity, conflict, and performance. *Administrative Science Quarterly*, 44(1), 1.
- Pelz, D. C., & Andrews, F. M. (1966). *Scientists in organizations: Productive climates for research and development*. New York: Wiley.
- Pescosolido, A. T. (2003). Group efficacy and group effectiveness: The effects of group efficacy over time on group performance and development. *Small Group Research*, 34(1), 20-42.
- Peterson, R. S., & Behfar, K. J. (2003). The dynamic relationship between performance feedback, trust, and conflict in groups: A longitudinal study. *Organizational Behavior and Human Decision Processes*, 92(1-2), 102-112.
- Phinney, J. S., & Ong, A. D. (2007). Conceptualization and measurement of ethnic identity: Current status and future directions. *Journal of Counseling Psychology*, 54(3), 271-281.
- Pierson, P. (2000). Increasing returns, path dependence, and the study of politics. *The American Political Science Review*, 94(2), 251-267.
- Piiparinen, T. (2006). Reclaiming the human stratum, acknowledging the complexity of social behaviour: From the linguistic turn to the social cube in theory of decision-making. *Journal for Theory of Social Behaviour*, 36(4), 425-452.
- Pincus, D., Fox, K. M., Perez, K. A., Turner, J. S., & McGeehan, A. R. (2008). Nonlinear dynamics of individual and interpersonal conflict in an experimental group. *Small Group Research*, 39(2), 150-178.
- Pinkley, R. L. (1990). Dimensions of conflict frame: Disputant interpretations of conflict. *Journal of Applied Psychology*, 75(2), 117-126.
- Plowman, D. A., & Duchon, A. P. (2008). Dispelling the myths about leadership: From cybernetics to emergence. In M. Uhl-Bien & R. Marion (Eds.), *Complexity leadership*. Charlotte, NC: IAP.
- Plowman, D. A., Solansky, S., Beck, T. E., Baker, L., Kulkarni, M., & Travis, D. V. (2007). The role of leadership in emergent, self-organization. *Leadership Quarterly*, 18(4), 341-356. doi:10.1016/j.leaqua.2007.04.004

- Podsakoff, P. M., MacKenzie, S. B., & Ahearne, M. (1997). Moderating effects of goal acceptance on the relationship between group cohesiveness and productivity. *Journal of Applied Psychology, 82*(6), 974-983.
- Podsakoff, P. M., MacKenzie, S. B., Moorman, R. H., & Fetter, R. (1990). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. *Leadership Quarterly, 1*(2), 107-142.
- Poole, M. S. (1983). Decision development in small groups, III: A multiple sequence model of group decision development. *Communication Monographs, 50*(4), 321-341.
- Poole, M. S., & Roth, J. (1989a). Decision development in small groups IV a typology of group decision paths. *Human Communication Research, 15*(3), 323-356.
- Poole, M. S., & Roth, J. (1989b). Decision development in small groups V: Test of a contingency model. *Human Communication Research, 15*, 549-589.
- Prentice-Dunn, S., & Rogers, R. W. (1989). Deindividuation and the self-regulation of behavior. In P. B. Paulus (Ed.), *Psychology of group influence* (2 ed., pp. 87-109). Hillsdale, NJ: Lawrence Erlbaum.
- Prentice, D. A., Miller, D. T., & Lightdale, J. R. (1994). Asymmetries in attachments to groups and to their members: Distinguishing between common-identity and common-bond groups. *Personality and Social Psychology Bulletin, 20*(5), 484-493.
- Prigogine, I., & Stengers, I. (1984). *Order out of chaos: Man's new dialogue with nature*. New York: Bantam.
- Pruyt, E. (2013). *Small system dynamics models for big issues: Triple jump towards real-world complexity*. Netherlands: TU Delft Library.
- Quinn, T., Riggs, N., & Hanson, D. (1998). Simplified parliamentary procedure. In I. S. University (Ed.). Ames, Iowa: University Extension.
- Rahim, M. A. (2002). Toward a theory of managing organizational conflict. *The Imemwiollal Journal of Conflicl Mallagemem, 13*(3), 206-235.
- Rantilla, A. K. (1996). *Attributions for collective and individual performance*. Masters Thesis. University of Illinois. Urbana Champaign.
- Rasker, P. C., Post, W. M., & Schraagen, J. M. C. (2000). Effects of two types of intra-team feedback on developing a shared mental model in Command & Control teams. *Ergonomics, 43*(8), 1167-1189.
- Raven, B. H., & Kruglanski, W. (1970). Conflict and power. In P. Swingle (Ed.), *The structure of conflict* (pp. 177-219). New York: Academic Press.
- Reicher, S., & Levine, M. (1994a). Deindividuation, power relations between groups and the expression of social identity: The effects of visibility to the out-group. *British Journal of Social Psychology, 33*(2), 145-163.
- Reicher, S., & Levine, M. (1994b). On the consequences of deindividuation manipulations for the strategic communication of self: Identifiability and the

- presentation of social identity. *European Journal of Social Psychology*, 24(4), 511-524.
- Reus-Smit, C. (2001). Human rights and the social construction of sovereignty. *Review of International Studies*, 27(4), 519-538.
- Richter, A. W., West, M. A., van Dick, R., & Dawson, J. F. (2006). Boundary spanners' identification, intergroup contact, and effective intergroup relations. *Academy of Management Journal*, 49(6), 1252-1269.
- Ridgeway, C. (1991). The social construction of status value: Gender and other nominal characteristics. *Social Forces*, 70(2), 367.
- Ridgeway, C. (2001). Social status and group structure. In M. A. Hogg & R. S. Tindale (Eds.), *Blackwell handbook of social psychology: Group processes* (pp. 352-375). Malden, MA: Blackwell.
- Ridgeway, C., & Balkwell, J. W. (1997). Group processes and the diffusion of status beliefs. *Social Psychology Quarterly*, 60(1), 14-31.
- Ritzer, G., & Gindoff, P. (1994). Agency-structure, micro-macro, individualism-holism-relationalism: A metatheoretical explanation of theoretical convergence between the United States and Europe. In P. Sztompka (Ed.), *Agency and structure: Reorienting social theory* (pp. 107-118). London: Gordon and Breach.
- Ritzer, G., Zhao, S., & Murphy, J. (2006). Metatheorizing in sociology: The basic parameters and the potential contributions of postmodernism. In J. H. Turner (Ed.), *Handbook of Sociological Theory* (pp. 113-131). Boston, MA: Springer US.
- Rivers, J. J., & Joseph, R. A. (2010). Dominance and health: The role of social rank in physiology and illness. In A. Guinot & T. K. Vescio. (Eds.), *The social psychology of power* (pp. 87-112). New York: Guilford Press.
- Rivkin, J. W. (2000). Imitation of complex strategies. *Management Science*, 46(6), 824-844.
- Robbins, S. P., Judge, T. A., Millett, B., & Waters-Marsh, T. (2007). *Organisational behaviour*. Frenchs Forest, NSW: Pearson Education Australia.
- Robinson, S., & Weldon, E. (1993). Feedback seeking in groups: A theoretical perspective. *British Journal of Social Psychology*, 32(1), 71-86.
- Rokeach, M. (1973). *The nature of human values*. New York: Free Press.
- Ross, T. M., Jones, E. C., & Adams, S. G. (2008). Can team effectiveness be predicted? *Team Performance Management: An International Journal*, 14(5/6), 248-268.
- Rousseau, D. M., & Fried, Y. (2001). Location, location, location: contextualizing organizational research. *Journal of Organizational Behavior*, 22(1), 1-13.
- Rudman, L. A. (1998). Self-promotion as a risk factor for women: The costs and benefits of counterstereotypical impression management. *Journal of Personality and Social Psychology*, 74(3), 629-645.

- Russell, G. M., & Kelly, N. H. (2002). Research as interacting dialogic processes: Implications for reflexivity. *Forum: Qualitative social research, 3*(3). Retrieved from
- Saillard, E. K. (2011). Systematic versus interpretive analysis with two CAQDAS packages: NVivo and MAXQDA. *Forum: Qualitative social research, 12*(1). Retrieved from
- Salas, E., Goodwin, G. F., & Burke, C. S. (2009). *Team effectiveness in complex organizations: Cross-disciplinary perspectives and approaches*. New York: Routledge.
- Salas, E., Stagl, K. C., & Burke, C. S. (2004). 25 years of team effectiveness in organizations: Research themes and emerging needs. In C. Cooper & I. Robertson (Eds.), *International Review of Industrial and Organizational Psychology* (Vol. 19, pp. 47-92). West Sussex, UK: John Wiley and Sons.
- Saldaña, J. (2013). *The coding manual for qualitative researchers*. Los Angeles, CA: Sage.
- Salin, D. (2003). Ways of explaining workplace bullying: A review of enabling, motivating and precipitating structures and processes in the work environment. *Human Relations, 56*(10), 1213-1232.
- Sanna, L. J., & Parks, C. D. (1997). Group research trends in social and organizational psychology: Whatever happened to intragroup research? *Psychological Science, 8*(4), 261-267.
- Schatzman, L. (1991). Social organisations and social process: Essays in honour of Anselm Strauss. In D. R. Maines (Ed.), (pp. 303-314). New York: Aldine De Gruyter.
- Scheffer, M., Carpenter, S. R., Lenton, T. M., Bascompte, J., Brock, W., Dakos, V., . . . Van Nes, E. H. (2012). Anticipating critical transitions. *Science, 338*(6105), 344-348.
- Schermerhorn, J. R., Osborn, R., & Hunt, J. G. (2012). *Organizational behavior*. Hoboken, NJ: Wiley.
- Schmid-Mast, M. (2002). Female dominance hierarchies: Are they any different from males'? *Personality and Social Psychology Bulletin, 28*(1), 29-39.
- Schmidt, A., Dolis, C. M., & Tolli, A. P. (2009). A matter of time: Individual differences, contextual dynamics, and goal progress effects on multiple-goal self-regulation. *Journal of Applied Psychology, 94*(3), 692-709.
- Schmidt, R., Carello, C., & Turvey, M. T. (1990). Phase transitions and critical fluctuations in the visual coordination of rhythmic movements between people. *Journal of Experimental Psychology: Human Perception and Performance, 16*(2), 227-247.
- Schneider, M., & Somers, M. (2006). Organizations as complex adaptive systems: Implications of complexity theory for leadership research. *The Leadership Quarterly, 17*(4), 351-365.

- Schwandt, D. (2005). When managers become philosophers: Integrating learning with sensemaking. *Academy of Management Learning and Education, 4*(2), 176-192.
- Schwandt, T. (2001). *Dictionary of qualitative inquiry* (2 ed.). Thousand Oaks, CA: Sage.
- Scott, J. (2000). *Social network analysis: A handbook*. Thousands Oaks, CA: Sage Publications.
- Seale, C. (1999). *The quality of qualitative research*. London: Sage Publications.
- Self, D. R., Armenakis, A. A., & Schraeder, M. (2007). Organizational change content, process, and context: A simultaneous analysis of employee reactions. *Journal of Change Management, 7*(2), 211-229.
- Semmer, N., & Frese, M. (1985). Action theory in clinical psychology. In M. Frese & J. Sabini (Eds.), *Goal directed behavior: The concept of action in psychology* (pp. 296-310). Hillsdale, NJ: L. Erlbaum Associates.
- Shapiro, S. P. (2005). Agency theory. *Annual Review of Sociology, 31*, 263-284.
- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information, 22*(2), 63-75.
- Sherif, M. (1935). A study of some social factors in perception. *Archives of Psychology, 27*, 5-60.
- Sherif, M. (1966). *In common predicament: Social psychology of intergroup conflict and cooperation*. Boston: Houghton Mifflin.
- Shiffrin, R. M., & Schneider, W. (1977). Controlled and automatic human information processing: II. Perceptual learning, automatic attending, and a general theory. *Psychology Review, 84*, 127-190.
- Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychological Methods, 7*(4), 422-445.
- Sidanius, J., & Pratto, F. (1999). *Social dominance: An intergroup theory of social hierarchy and oppression*. New York: Cambridge University Press.
- Siggelkow, N. (2001). Change in the presence of fit: The rise, the fall, and the renaissance of Liz Claiborne. *Academy of Management Journal, 44*(4), 838-857.
- Silverman, S. B., Pogson, C. E., & Cober, A. B. (2005). When employees at work don't get it: A model for enhancing individual employee change in response to performance feedback. *Academy of Management Executive, 19*(2), 135-147.
- Simmel, G. (1902). The number or members as determining the sociological form of the group. *American Journal of Sociology, 8*(2), 158-196.
- Simmel, G., & Wolff, K. H. (1950). *The sociology of Georg Simmel*. New York The free press of Glencoe.

- Simmons, S., & Estes, Z. (2008). Individual differences in the perception of similarity and difference. *Cognition*, *108*(3), 781-795.
- Simon, H. A. (1995). Near decomposability and complexity: How a mind resides in a brain. In H. Morowitz & J. L. Singer (Eds.), *Santa Fe Institute studies in the sciences of complexity: The mind, the brain, and complex adaptive systems* (Vol. 22, pp. 25-43). Reading, MA: Addison Wesley.
- Simon, H. A. (1996). *The sciences of the artificial*. Cambridge, MA: MIT Press.
- Simons, T. L., & Peterson, R. S. (2000). Task conflict and relationship conflict in top management teams: The pivotal role of intragroup trust. *Journal of Applied Psychology*, *85*(1), 102-111.
- Singh, J. V., House, R. J., & Tucker, D. J. (1986). Organizational change and organizational mortality. *Administrative Science Quarterly*, *31*(4), 587-611.
- Sinha, K. K., & van de Ven, A. H. (2005). Designing work within and between organizations. *Organization Science*, *16*(4), 389-408.
- Slater, P. E. (1966). *Microcosm: Structural, psychological, and religious evolution in groups*. New York: Wiley.
- Smit, B., & Wandel, J. (2006). Adaptation, adaptive capacity and vulnerability. *Global Environmental Change*, *16*(3), 282-292.
- Smith-Crowe, K., Brief, A. P., & Umphress, E. E. (2008). On the outside looking in: Window shopping for insights into diversity-driven conflict. In C. deDreu & M. J. Gelfand (Eds.), *The psychology of conflict and conflict management in organizations* (pp. 415-423). New York: Lawrence Erlbaum Associates.
- Smith, C., Tindale, R. S., & Dugoni, B. L. (1996). Minority and majority influence in freely interacting groups: Qualitative versus quantitative differences. *British Journal of Social Psychology*, *35*(1), 137-149.
- Smith, E., Seger, C. R., & Mackie, D. M. (2007). Can emotions be truly group level? Evidence regarding four conceptual criteria. *Journal of Personality and Social Psychology*, *93*(3), 431-446.
- Smith, K., & Berg, D. N. (1987). *Paradox of group life: Understanding conflict, paralysis, and movement in group dynamics*. San Francisco: Jossey-Bass.
- Snowden, D. J., & Boone, M. E. (2007). A leader's framework for decision making. *Harvard Business Review*, *85*(11), 68-76.
- Snyder, S. (2013). The simple, the complicated, and the complex: Educational reform through the lens of complexity theory. [OECD Education Working Papers No. 96]. Retrieved from <http://dx.doi.org/10.1787/5k3txnpt1lnr-en>
- Son-Hing, L. S., Bobocel, D. R., Zanna, M. P., & McBride, M. V. (2007). Authoritarian dynamics and unethical decision making: High social dominance orientation leaders and high right-wing authoritarianism followers. *Journal of Personality and Social Psychology*, *92*(1), 67-81.
- Sorrels, J. P., & Kelley, J. (1984). Conformity by Omission. *Personality and Social Psychology Bulletin*, *10*(2), 302-305.

- Spear, S. J. (2004). Learning to lead at Toyota. *Harvard Business Review*, 82(5), 78-86.
- Spoor, J. R., & Kelly, J. R. (2004). The evolutionary significance of affect in groups: Communication and group bonding. *Group Processes and Intergroup Relations*, 7(4), 398-412.
- Stacey, R. (2007). *Strategic management and organizational dynamics: The challenge of complexity* (Vol. 5). New York: Prentice Hall.
- Stajkovic, A. D., Lee, D., & Nyberg, A. J. (2009). Collective efficacy, group potency, and group performance: meta-analyses of their relationships, and test of a mediation model. *Journal of Applied Psychology*, 94(3), 814-828.
- Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage Publications.
- Stasser, G. (1991). *Facilitating the use of unshared information in decision making groups*. Paper presented at the 63rd annual meeting of the Midwest Psychological Association, Chicago, IL.
- Stasser, G. (1992). Pooling of unshared information during group discussions. In S. Worchel, W. Wood, & J. A. Simpson (Eds.), *Group process and productivity* (pp. 48-67). Newbury Park, CA: Sage.
- Stasser, G., & Stewart, D. (1992). Discovery of hidden profiles by decision-making groups: Solving a problem versus making a judgment. *Journal of Personality and Social Psychology*, 63(3), 426-434.
- Stasser, G., Stewart, D. D., & Wittenbaum, G. M. (1995). Expert roles and information exchange during discussion: The importance of knowing who knows what. *Journal of Experimental Social Psychology*, 31(3), 244-265.
- Stasser, G., Taylor, L. A., & Hanna, C. (1989). Information sampling in structured and unstructured discussions of three and six person groups. *Journal of Personality and Social Psychology*, 57(1), 67-78.
- Stasser, G., & Titus, W. (1985). Pooling of unshared information in group decision making: Biased information sampling during discussion. *Journal of Personality and Social Psychology*, 48(6), 1467-1478.
- Stasser, G., & Titus, W. (1987). Effects of information load and percentage of shared information on the dissemination of unshared information during group discussion. *Journal of Personality and Social Psychology*, 53(1), 81-93.
- Stasser, G., & Titus, W. (2006). Pooling of unshared information in group decision making: Biased information sampling during discussion. In J. M. Levine & R. L. Moreland (Eds.), *Small groups: Key readings* (pp. 227-239). New York: Psychology Press.
- Stasser, G., Vaughan, S. I., & Stewart, D. D. (2000). Pooling unshared information: The benefits of knowing how access to information is distributed among group members. *Organizational Behavior and Human Decision Processes*, 82(1), 102-116.

- Staw, B. M. (1975). Attribution of the "causes" of performance: A general alternative interpretation of cross-sectional research on organizations. *Organizational Behavior and Human Performance*, 13(3), 414-432.
- Staw, B. M., Sandelands, L. E., & Dutton, J. E. (1981). Threat-Rigidity effects in organizational behavior: A multilevel analysis. *Administrative Science Quarterly*, 26(4), 501-524.
- Steenbeek, H., Jansen, L., & van Geert, P. (2012). Scaffolding dynamics and the emergence of problematic learning trajectories. *Learning and Individual Differences*, 22(1), 64-75.
- Steinel, W., van Kleef, G. A., van Knippenberg, D., Hogg, M. A., Homan, A. C., & Moffitt, G. (2010). How intragroup dynamics affect behavior in intergroup conflict: The role of group norms, prototypicality, and need to belong. *Group Processes and Intergroup Relations*, 13(6), 779-794.
- Steiner, I. D. (1972). *Group process and productivity*. New York: Academic.
- Stevens, R. H. (2010). Managing human capital: How to use knowledge management to transfer knowledge in today's multi-generational workforce. *International Business Research*, 3(3), 77-83.
- Stewart, D. D., & Stasser, G. (1993). *Information sampling in collective recall groups versus decision making groups*. Paper presented at the 65th annual meeting of the Midwest Psychological Association, Chicago, IL.
- Stewart, D. D., & Stasser, G. (1995). Expert role assignment and information sampling during collective recall and decision making. *Journal of Personality and Social Psychology*, 69(4), 619-628.
- Stewart, D. D., Wittenbaum, G., & Stasser, G. (1992). *Expert roles and information exchange during discussion: The importance of knowing who knows what*. Paper presented at the 64th annual meeting of the Midwest Psychological Association, Chicago, IL.
- Stickland, F. (2007). *The dynamics of change: Insights into organisational transition from the natural world*. Abingdon: Routledge.
- Stock, D., & Thelen, H. A. (1958). *Emotional dynamics and group culture: Experimental studies of individual and group behavior*. New York: New York University Press.
- Stokes, J. P. (1983). Components of group cohesion: Intermember attraction, instrumental value, and risk taking. *Small Group Research*, 14(2), 163-173.
- Stolte, J. F., Alan, G., & Cook, K. S. (2001). Sociological miniaturism: Seeing the big through the small in social psychology. *Annual Review of Sociology*, 27(1), 387-413.
- Stout, R. J., Cannon-Bowers, J. A., Salas, E., & Milanovich, D. M. (1999). Planning, shared mental models, and coordinated performance: An empirical link is established. *Human Factors*, 41(1), 61-71.
- Strauss, A. (1993). *Continual permutations of action*. New York: Aldine de Gruyter.

- Strauss, A., & Corbin, J. (Eds.). (1997). *Grounded theory in practice*. Thousand Oaks, CA: Sage.
- Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. *Academy of Management Review*, 20(3), 571-610.
- Sundstrom, E., de Meuse, K. P., & Futrell, D. (1990). Work teams: Applications and effectiveness. *American Psychologist*, 45(2), 120-133.
- Sunwolf, & Seibold, D. R. (1999). The impact of formal problem-solving procedures on group processes, members, and task outcomes. In R. Frey, D. S. Gouran, & M. S. Poole (Eds.), *The handbook of group communication theory and research* (pp. 395-431). Thousand Oaks, CA: Sage.
- Surie, G., & Hazy, J. (2006). Generative leadership: Nurturing innovation in complex systems. *Emergence: Complexity and Organization*, 8(4), 13-26.
- Swann, W. B., Buhrmester, M. D., Gómez, A., Jetten, J., Bastian, B., Vázquez, A., . . . Zhang, A. (2014). What makes a group worth dying for? Identity fusion fosters perception of familial ties, promoting self-sacrifice. *Journal of Personality and Social Psychology*, 106(6), 912-926.
- Swann, W. B., Gomez, A., Buhrmester, M. D., Lopez-Rodriguez, L., Jimenez, J., & Vazquez, A. (2014). Contemplating the ultimate sacrifice: Identity fusion channels pro-group affect, cognition, and moral decision making. *Journal of Personal Social Psychology*, 106(5), 713-727.
- Swann, W. B., Gómez, Á., Huici, C., Morales, J. F., & Hixon, J. G. (2010). Identity fusion and self-sacrifice: Arousal as a catalyst of pro-group fighting, dying, and helping behavior. *Journal of Personality and Social Psychology*, 99(5), 824-841.
- Taggar, S. (2006). Interpersonal affect and peer rating bias in teams. *Small Group Research*, 37(1), 86-111.
- Tajfel, H. (1982). Social psychology of intergroup relations. *Annual Review of Psychology*, 33(1), 1.
- Tajfel, H., Billig, M. G., Bundy, R. P., & Flament, C. (1971). Social categorization and intergroup behaviour. *European Journal of Social Psychology*, 1(2), 149-178.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behavior. In S. W. W. & G. Austin (Eds.), *Psychology of intergroup relations* (2 ed., pp. 7-24). Chicago, IL: Nelson-Hall.
- Tekleab, A. G., Quigley, N. R., & Tesluk, P. E. (2009). A longitudinal study of team conflict, conflict management, cohesion, and team effectiveness. *Group and Organization Management*, 34(2), 170-205.
- Thatcher, S., Jehn, K., & Chadwick, C. (1998). *Understanding the impact of differences: Individual demographic differences, group diversity, and conflict*. Paper presented at the Annual Meeting of Academy of Management, San Diego, CA.
- Theodorson, G. A. (1962). The function of hostility in small groups. *Journal of Social Psychology*, 56(1), 57-66.

- Thibaut, J. W., & Kelley, H. H. (1959). *The social psychology of groups*. New York: John Wiley.
- Thibaut, J. W., & Strickland, L. H. (1956). Psychological set and social conformity. *Journal of Personality, 25*(2), 115.
- Thietart, R., & Forgues, B. (1995). Chaos theory and organization. *Organization Science, 6*(1), 19-31.
- Thietart, R., & Forgues, B. (2011). Complexity science and organization. In P. Allen, S. Maguire, & B. McKelvey (Eds.), *The Sage handbook of complexity and management* (pp. 53-64). London: Sage.
- Thom, R. (1975). *Structural stability and morphogenesis*. New York: Benjamin-Addison- Wesley.
- Thompson, L. (2004). *Making the team: A guide for managers* (2 ed.). Upper Saddle River, NJ: Prentice Hall.
- Tiedens, L. Z., Ellsworth, P. C., & Mesquita, B. (2000). Sentimental stereotypes: Emotional expectations for high and low-status group members. *Personality and Social Psychology Bulletin, 26*(5), 560-575.
- Tindale, R. S. (1989). Group vs individual information processing: The effects of outcome feedback on decision making. *Organizational Behavior and Human Decision Processes, 44*(3), 454-473.
- Tindale, R. S., Dykema-Engblade, A., & Wittkowski, E. (2005). Conflict within and between groups. In S. A. Wheelan (Ed.), *The handbook of group research and practice* (pp. 313-329). Thousand Oaks, CA: Sage Publications, Inc.
- Tindale, R. S., Kulik, C. T., & Scott, L. A. (1991). Individual and group feedback and performance: An attributional perspective. *Basic and Applied Social Psychology, 12*(1), 41-62.
- Tindale, R. S., Sheffey, S., & Scott, L. A. (1993). Framing and group decision-making: Do cognitive changes parallel preference changes? *Organizational Behavior and Human Decision Processes, 55*(3), 470-485.
- Tindale, R. S., Smith, C. M., Thomas, L. S., Filkins, J., & Sheffey, S. (1996). Shared representations and asymmetric social influence processes in small groups. In E. H. Witte & J. H. Davis (Eds.), *Understanding group behavior: Consensual action by small groups* (Vol. 1, pp. 81-104). Hillsdale, NJ: Erlbaum.
- Tobin, G. A., & Begley, C. M. (2004). Methodological rigour within a qualitative framework. *Journal of Advanced Nursing, 48*(4), 388-396.
- Tompkins, P. K., & Cheney, G. (1985). Communication and unobtrusive control in contemporary organizations. In R. D. McPhee & P. K. Tompkins (Eds.), *Organizational communication: Traditional themes and new directions* (pp. 179-210). Newbury Park, CA: Sage.
- Triplet, N. (1898). The dynamogenic factors in pace-making and competition. *American Journal of Psychology, 9*, 507-533.

- Tschan, F., & Von Cranach, M. (1996). Group task structure, processes, and outcome. In M. A. West (Ed.), *Handbook of work group psychology* (pp. 92-121). New York: John Wiley.
- Tuckman, B. W. (1965). Developmental sequence in small groups. *Psychological Bulletin*, 63(6), 384-399.
- Tuckman, B. W., & Jensen, M. A. C. (1977). Stages of small-group development revisited. *Group and Organization Studies*, 2(4), 419-427.
- Turner, J. (2000). *On the origins of human emotions: A sociological inquiry into the evolution of human affect*. Stanford, CA: Stanford University Press.
- Turner, J. (2006a). Role theory. In J. H. Turner (Ed.), *Handbook of Sociological Theory* (pp. 233-254). Boston, MA: Springer US.
- Turner, J. (2006b). Sociological theory today. In J. H. Turner (Ed.), *Handbook of Sociological Theory* (pp. 1-17). Boston, MA: Springer US.
- Turner, J., Hogg, M., Oakes, P., Reicher, S., & Wetherall, M. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford, UK: Basil Blackwell.
- Turner, S., & Turner, J. (1990). *The impossible science: An institutional analysis of American sociology*. Newbury Park, CA: Sage Publications.
- U.S. Department of Commerce Bureau of the Census, & U.S. Department of Labor Bureau of Labor Statistics. (2006). *Current population survey, January 2006: Displaced workers, employee tenure, and occupational mobility supplement*. (ICPSR04568-v2). Ann Arbor, MI: Inter-university Consortium for Political and Social Research Retrieved from <http://doi.org/10.3886/ICPSR04568.v2>.
- U.S. Department of Labor. (2014). *Economic news release. Employee tenure summary*. (USD-14-1714). Retrieved from <http://www.bls.gov/news.release/tenure.nr0.htm>.
- Uhl-Bien, M. (2006). Relational leadership theory: Exploring the social processes of leadership and organizing. *The Leadership Quarterly*, 17(6), 654-676.
- Uhl-Bien, M., & Marion, R. (2009). Complexity leadership in bureaucratic forms of organizing: A meso model. *The Leadership Quarterly*, 20(4), 631-650. doi:<http://dx.doi.org/10.1016/j.leaqua.2009.04.007>
- Uhl-Bien, M., Marion, R., & McKelvey, B. (2007). Complexity leadership theory: Shifting leadership from the industrial age to the knowledge era. *The Leadership Quarterly*, 18(4), 298-318.
- Upshaw, H. S. (1969). The personal reference scale: An approach to social judgment. In B. Leonard (Ed.), *Advances in experimental social psychology* (Vol. 4, pp. 315-371). New York: Academic Press.
- Vaillancourt, T., Hymel, S., & McDougall, P. (2003). Bullying is power: Implications for school-based intervention strategies. *Journal of Applied School Psychology*, 19(2), 157-176.

- Vallacher, R., & Nowak, A. (1994a). The chaos in social physiology. In R. Vallacher & A. Nowak (Eds.), *Dynamical systems in social psychology* (pp. 1-16). San Diego: Academic Press.
- Vallacher, R., & Nowak, A. (1994b). The stream of social judgment. In R. Vallacher & A. Nowak (Eds.), *Dynamical systems in social psychology* (pp. 251-278). San Diego: Academic Press.
- Vallacher, R., & Nowak, A. (1997). The emergence of dynamical social psychology. *Psychological Inquiry*, 8(2), 73-99.
- Vallacher, R., Nowak, A., Coleman, P. T., Bui-Wrzosinska, L., Liebowitch, L., Kugler, K., & Bartoli, A. (2013). Origins: The promise of dynamical systems theory & psychology. In *Attracted to conflict: Dynamic foundations of destructive social relations* (pp. 19-52). Berlin: Springer-Verlag.
- Vallacher, R., Nowak, A., & Kaufman, J. (1994). Intrinsic dynamics of social judgment. *Journal of Personality and Social Psychology*, 67(1), 20-34.
- van Dijke, M., & Poppe, M. (2007). Motivations underlying power dynamics in hierarchically structured groups. *Small Group Research*, 38(6), 643-669.
- Vanlear, C. A., & Mabry, E. A. (1999). Testing contrasting interaction models for discriminating between consensual and dissentient decision-making groups. *Small Group Research*, 30(1), 29-58.
- Varela, F. (1995). The emergent self. In J. Brockman (Ed.), *The third culture*. New York: Simon & Schuster.
- Varela, F., Sanchez-Leighton, V., & Coutinho, A. (1992). Adaptive strategies gleaned from immune networks: Viability theory and comparison with classifier systems. In B. Goodwin & P. Saunders (Eds.), *Theoretical biology: Epigenetic and evolutionary order from complex systems* (pp. 112-123). Baltimore, MD: Johns Hopkins University Press.
- Vidgen, R., & Bull, L. (2011). Applications of Kauffman's evolutionary NKC model to management and organization studies. In P. Allen, S. Maguire, & B. McKelvey (Eds.), *The Sage handbook of complexity and management* (pp. 201-219). London: Sage.
- Volpert, W. (1990). Which work is good for mankind. Notes concerning attitudes towards human beings and work organization. In F. Frei, I. Udris, & E. Ulich (Eds.), *The image of the work* (pp. 23-40). Bern: Hans Huber.
- von Bertalanffy, L. (1968). *General system theory: Foundations, development, applications*. New York: G. Braziller.
- von Bertalanffy, L. (1973). *General system theory*. New York: George Braziller.
- von Cranach, M. (1982). *Goal-directed action*. New York: Academic Press.
- von Cranach, M., Ochsenein, G., & Valach, L. (1986). The group as a self-active system: Outline of a theory of group action. *European Journal of Social Psychology*, 16(3), 193-229.

- Wageman, R., Nunes, D. A., Burruss, J. A., & Hackman, J. R. (2008). *Senior leadership teams: What it takes to make them great*. Boston, MA: Harvard Business School Press.
- Walby, S. (2003). *Complexity theory, globalisation and diversity*. Paper presented at the British Sociological Association, University of York.
- Walby, S. (2007). Complexity theory, systems theory, and multiple intersecting social inequalities. *Philosophy of Social Sciences*, 37(4), 449-470.
- Walby, S. (2009). *Globalization and inequalities complexity and contested modernities*. Los Angeles, CA: Sage Publications.
- Waldeck, J. H., & Myers, K. (2008). Organizational assimilation theory, research, and implications for multiple areas of the discipline: A state of the art review. In C. S. Beck (Ed.), *Communication Yearbook* (pp. 322-367). Mahwah, NJ: Lawrence Erlbaum Associates.
- Waldman, D. A., Ramirez, G. G., House, R. J., & Puranam, P. (2001). Does leadership matter? CEO leadership attributes and profitability under conditions of perceived environmental uncertainty. *Academy of Management Journal*, 44(1), 134-143.
- Waldrop, M. M. (1992a). Artificial life's rich harvest: Startlingly realistic simulations of organisms, ecosystems, and evolution are unfolding on computer screens as researchers try to recreate the dynamics of living things. *Science*, 257(5073), 1040-1052.
- Waldrop, M. M. (1992b). *Complexity: The emerging science at the edge of order and chaos*. New York: Simon and Schuster.
- Walker, B., Holling, C. S., Carpenter, S. R., & Kinzig, A. (2004). Resilience, adaptability and transformability in social-ecological systems. *Ecology and Society*, 9(2). Retrieved from <http://www.ecologyandsociety.org/vol9/iss2/art5>
- Wall, J. A., & Callister, R. R. (1995). Conflict and its management. *Journal of Management*, 21(3), 515-558.
- Walton, R. E., & McKersie, R. B. (1965). *A behavioral theory of labor negotiations: An analysis of a social interaction system*. New York: McGraw-Hill.
- Wanous, J. P., Reichers, A. E., & Malik, S. D. (1984). Organizational socialization and group development: Toward and integrative perspective. *Academy of Management Review*, 9(4), 670-683.
- Watt, D. (2007). On becoming a qualitative researcher: The value of reflexivity. *The Qualitative Report*, 12(1), 82-101.
- Webb, E. J. (1971). *Unobtrusive measures: Nonreactive research in the social sciences*. Chicago: McNally.
- Weber, M. (1920). *The protestant ethic and the spirit of capitalism, and, the evolution of the capitalistic spirit*. Chicago, IL: University of Chicago

- Wegner, D. (1986). Transactive memory: A contemporary analysis of the group mind. In B. Mullen & G. R. Goethals (Eds.), *Theories of group behavior* (pp. 185–205). New York, NY: Springer-Verlag.
- Weick, K. E. (1979). *The social psychology of organizing* (2 ed.). New York: McGraw-Hill, Inc.
- Weick, K. E. (1995). *Sensemaking in organizations*. Thousand Oaks, CA: Sage, Inc.
- Weick, K. E. (1996). Enactment and the boundaryless career. In M. B. Arthur & D. M. Rousseau (Eds.), *The boundaryless career: A new employment principle for a new organizational era* (pp. 40-57). New York: Oxford University Press.
- Weick, K. E., & Gilfillan, D. P. (1971). Fate of arbitrary traditions in a laboratory microculture. *Journal of Personality and Social Psychology*, 17(2), 179-191.
- Weiner, N. (1948). *Cybernetics*. Cambridge, MA: Technology Press.
- Weingart, L. R. (1992). Impact of group goals, task component complexity, effort, and planning on group performance. *Journal of Applied Psychology*, 77(5), 682-693.
- Weitzel, A., & Geist, P. (1998). Parliamentary procedure in a community group: Communication and vigilant decision making. *Communication Monographs*, 65(3), 244-259.
- Wekselberg, V., Goggin, W. C., & Collings, T. J. (1997). A multifaceted concept of group maturity and its measurement and relationship to group performance. *Small Group Research*, 28(1), 3-28.
- Weldon, P. R. (2015). *The teacher workforce in Australia: Supply, demand and data issues*. Retrieved from Camberwell VIC:
- Wheatley, M. J. (2006). *Leadership and the new science: Discovering order in a chaotic world*. San Francisco: Berrett-Koehler.
- Wheelan, S. A. (1990). *Facilitating training groups: A guide to leadership and verbal intervention skills*. New York: Praeger.
- Wheelan, S. A. (1994). *Group processes: A developmental perspective*. Needham Heights, MA: Allyn & Bacon.
- Whetten, D. A. (1987). Organizational growth and decline processes. *Annual Review of Sociology*, 13, 335-358.
- Wiener, A. (2007). The dual quality of norms and governance beyond the state: Sociological and normative approaches to 'interaction'. *Critical Review of International Social and Political Philosophy*, 10(1), 47-69.
- Williams, K., Forgas, J. P., & Hippel, W. v. (Eds.). (2005). *The social outcast: Ostracism, social exclusion, rejection, and bullying*. New York: Psychology Press.
- Wilson, M., & Canter, D. (1993). Shared concepts in group decision making: A model for decisions based on qualitative data. *British Journal of Social Psychology*, 32(2), 159-172.

- Winter, D. (2010). Power in the person: Exploring the motivational underground of power. In A. Guinot & T. K. Vescio. (Eds.), *The social psychology of power* (pp. 113-140). New York: Guilford Press.
- Wittenbaum, G. M., & Moreland, R. L. (2008). Small-group research in social psychology: Topics and trends over time. *Social and Personality Psychology Compass*, 2(1), 187-203.
- Wolodko, K. (2011). *Application form - expedited review he11 - 199*. Form. Human Research Ethics Committee. University of New England. Armidale, NSW.
- Wolodko, K. (2015). *The emergence of intragroup dynamics from contextualised social processes: A complexity-oriented grounded theory approach*. (Doctorate of Philosophy Doctoral Dissertation), University of New England,
- Wolstenholme, E. F. (1990). *System enquiry: A system dynamics approach*. Chichester; New York: Wiley.
- Worchel, S. (1994). You can go home again: Returning group research to the group context with an eye on developmental issues. *Small Group Research*, 25(2), 205-223.
- Worchel, S. (1996). Emphasizing the social nature of groups in a developmental framework. In J. L. Nye, A. M. Brower, & A. M. Brower (Eds.), *Whats social about social cognition Research on socially shared cognition in small groups* (pp. 261-282). Thousand Oaks, CA: Sage.
- Worchel, S., Coutant-Sassic, D., & Grossman, M. (1992). A developmental approach to group dynamics: A model and illustrative research. In S. Worchel, W. Wood, & J. A. Simpson (Eds.), *Group process and productivity* (pp. 181-202). Newbury Park, CA: Sage.
- Worchel, S., Coutant-Sassic, D., & Wong, F. (1993). Toward a more balanced view of conflict: There is a positive side. In S. Worchel & J. A. Simpson (Eds.), *Conflict between people and groups: Causes, processes, and resolutions* (pp. 236-258). Chicago, IL: Nelson-Hall.
- Wright, S. (1931). Evolution in Mendelian populations. *Genetics*, 16(2), 97-159.
- Wright, S. (1932). The roles of mutation, inbreeding, crossbreeding, and selection in evolution. In D. F. Jones (Ed.), *Proceedings of the Sixth International Congress of Genetics* (Vol. 1, pp. 356-366). Ithaca, NY: Electronic Scholarly.
- Wundt, W. M. (1916). *Elements of folk psychology: Outlines of a psychological history of the development of mankind* (E. L. Schaub, Trans.). New York: Macmillan.
- Wyer, R. S., & Srull, T. K. (1986). Human cognition in its social context. *Psychological Review*, 93(3), 322-359.
- Xyrichis, A., & Ream, E. (2008). Teamwork: A concept analysis. *Journal of Advanced Nursing*, 61(2), 232-241.
- Yeatts, D., & Hyten, C. (1998). *High-performing self-managed work teams: A comparison of theory to practice*. Thousand Oaks, CA: Sage Publications.

- Yin, R. K. (2009). *Case study research: Design and methods*. Los Angeles: Sage.
- Youssefmir, M., & Huberman, B. A. (1997). Clustered volatility in multiagent dynamics. *Journal of Economic Behavior and Organization*, 32(1), 101-118.
- Zajac, E. J., & Bazerman, M. H. (1991). Blind spots in industry and competitor analysis: Implications of interfirm (mis)perceptions for strategic decisions. *Academy of Management Review*, 16(1), 37-56.
- Zander, A. (1971). *Motives and goals in groups*. New York: Academic Press.
- Zeeman, E. (1977). *Catastrophe Theory: Selected Papers*. Reading, MA: Addison-Wesley.
- Zimmerman, B., Lindberg, C., & Plsek, P. (2001). *Edgework: Insights from complexity science for health care leaders*. Irving, TX: VHA.
- Zurcher, L. A. (2006). The "friendly" poker game: A study of an ephemeral role. In J. M. Levine & R. L. Moreland (Eds.), *Small groups: Key readings* (pp. 97-110). New York: Psychology Press.

APPENDIX 1

SWOT ANALYSIS [FIRST PROGRAM] AWARD

Strengths	Weaknesses
<ol style="list-style-type: none"> 1. 2500 grads per year <ol style="list-style-type: none"> a. 98% employment of dip grads b. Work and study at the same time c. High demand 2. Relationship with external vocational program provider in [First Program] award and external vocational program provider in [First Program] award grads <ol style="list-style-type: none"> a. Quicker grads 3. Number of units taken is flexible <ol style="list-style-type: none"> a. 1 – 4 units per semester 4. Industry reference group 5. Cost <ol style="list-style-type: none"> a. No HEC courses at external vocational program provider in [First Program] award 6. Aboriginal students in external vocational program provider in [First Program] award 7. Currently, has multiple access points 8. Multiple entry and exit points 9. [Bachelor of Teaching]’s completely closed hours <ol style="list-style-type: none"> a. Select [Bachelor of Teaching]’s placement b. Five days for Current Program 1 and 5 days for the Current Program 2 	<ol style="list-style-type: none"> 1. Competition <ol style="list-style-type: none"> a. Other universities developing similar award 2. External study <ol style="list-style-type: none"> a. Inherent problems 3. Ease of presentation, duplication of external study 4. Quality assurance <ol style="list-style-type: none"> a. Desire to develop a new unit 5. Staff workload and semester timeline 6. Admin support in the faculty and teaching and learning (TLC) 7. Special needs of Aboriginal students <ol style="list-style-type: none"> a. Make sense teaching materials are appropriate for a variety of cultures 8. Take generic attributes and apply then maintain 9. [Bachelor of Teaching]’s <ol style="list-style-type: none"> a. Lack of consolidation in this region, overloading services b. Should there be more? c. Quality assurance of supervision
Opportunities	Threats
<ol style="list-style-type: none"> 1. Wider advertising 2. Expanding to other states 3. Elective from Program 2 	None
Notes-	
<ol style="list-style-type: none"> 1. Current Program 1 <ol style="list-style-type: none"> a. New first unit and academic literacies scaffold across programs. b. Drop combined units? 2. Current Program 2 <ol style="list-style-type: none"> a. Special program for external vocational program provider in [First Program] award for students with a diploma only and flyer because of Future Program 1 and 2. 	

APPENDIX 2

TRANSCRIPTION INSTRUCTIONS

Concept	Item	Code	Transcription Examples	Meaning
Group Discussion				Those events or incidents occur during a group discussion.
	Over Speak	[OS]	Speaker 1: I think we should [UT] Speaker 2: [OS] No the best method	Instances where a speaker talks over another speaker during the discussion of one topic.
	Jumping into a Discussion	[JI]	Speaker 1: I think we should be doing [UT] Speaker 2: [JI] No, no that never do	When a speaker jumps into a conversation creates a change in the direction of the discussion without creating an overlapping statement.
	Gapless Discussion	[GD]	Speaker 1: can you elaborate Speaker 2: [GD] I'd prefer not to. Speaker 3: [GD] let's do this	When there is no audible pause between speakers
	Unfinished Thought	[UT]	Speaker 1: I would like to [UT] Speaker 2: [JI] What we should do this [UT] Speaker 1: [OS] why would we do that?	When a speaker does not finish their thought due to a jump-in, or [OS]
	Attempt to Finish Thought	[AF]	Speaker 1: What do you [UT] Speaker 2: [OS] Oh, she not [UT] Speaker 1: [AF] [OS] think [UT]	When a speaker, after having their original thought interrupted, by either a jump-in or [OS] attempts to complete that thought.
	Complete Thought	[CT]	Speaker 1: What do you [UT] Speaker 2: [OS] Oh, she not Speaker 1: [AF] [OS][CT] think X5?	This occurs when a group member is presenting their thoughts and is interrupted by a [OS] or [JI], but continues to complete their thought despite the interruption[s].
	Incomplete Thought	[ICT]	Speaker 1: [ICT] I would like to [UT] Speaker 2: [OS] We really should Speaker 1: [ICT] That is a good idea	An instance where a speaker is interrupted by a [OS] or [JI], resulting in them not finishing their thought.
	Inaudible Statement	[IS]	Speaker 1: I think [IS] is a good	An instance when an individual's phrase or statement is made inaudible either by an external interference or by the speaker's lack of clarity.

Concept	Item	Code	Transcription Examples	Meaning
	Side Bar Discussion	[SB]	Speaker 1: My thoughts on this the new research project is Speaker 2: [SB] What do you think of the new (Cont Education)? Speaker 1: [SB] Yea, I think she is a great typist.	This occurs when two or more speakers start to discuss issues that are not related to the main topic of discussion, during the discussion of a topic.
	Background Noise	[BN]	Speaker 1: I believe that [BN] [Mower noise] shouldn't be allowed.	When a speaker's dialogue is made [IS] by a noise either from within or external to the meeting room
	Discussion Episode	[DE]	Speaker 1: [DE] I think we should start discussing Speaker 2: [DE] My thoughts on that are Speaker 1: [DE] So we agree to	When an agenda item of the issue is discussed in its entirety from opening statement to closing statement
	Agenda Item	[AI]	Speaker 1: [AI] Next item is	The discussion of an agenda item.

APPENDIX 3

TOPICAL LANDSCAPE FOR INTERVIEWS

1. What is your biography?
 - a. Where were, you born, and raised?
 - b. Where did you go to University?
 - c. What was your work history?
2. How long have you been with the group?
3. What are your past group experiences?
4. When
5. Where
6. Why?
7. Thoughts on function
8. Outcomes
9. What are your expectations of group work?
10. How do you view the group's level(s) of education expertise?
11. What do you see are the positives of group work?
12. What do you see are the negatives of group work?
13. As with any group separate "camps" tend to form. What "camps" have you seen from within the group.
14. What agenda(s) do you think those "camps" are trying to meet?
15. What is your optimal meeting frequency?
16. What is your desired meeting length?
17. What makes a group experience beneficial? Provide examples
18. What makes a group experience inefficient? Provide examples
19. What do you find to be distracting during a team meeting?
20. What group process do you like to occur during a team meeting?
21. What do you think are norms or rules that the group follows?
22. Does the group follow those norms or rules? If yes, when do you see this occurring? If no, when do you see this occurring?
23. What do you want to get out of the group meetings?

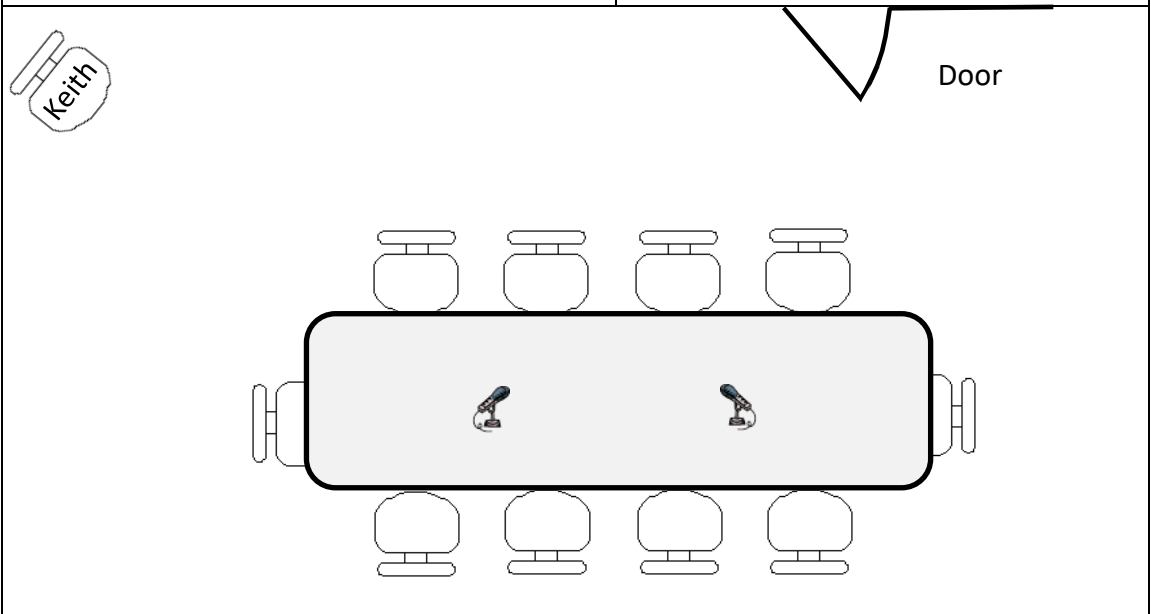
APPENDIX 4 FIELD NOTE TEMPLATE

Date: ___/___/___ Meeting Location: _____ Meeting Type: _____

Attendance: _____

Meeting Topic: _____

Notes	Ideas/Reflections/Actions
<p>Recording incidents and events that occur during group meetings, one on one interviews or through a document search that are related to how group members interact and behave in a group environment and involve the influence of personality, power, behaviour, and context on the group social processes. The goal of these notes is to gain an understanding of the group’s social processes, the construction of reality based on the interactions with others, which allowed an individual to comprehend the world and act collectively.</p>	<p>As incidents and events are recorded, I will note points that can label under a concept banner. I will record my summation of noted incidents and events, reflecting on the social processes that were demonstrated, highlighting my understanding of what transpired, and my preconceptions as they relate to the incidents and events. These reflections will also flesh out topical areas that will require further investigation through one on one interviews or document search. I will also use my summation(s) as points for verifying my research through member checking.</p>



APPENDIX 5

INFORMED CONSENT GROUP PARTICIPANTS

Information Sheet for Group Participants

Research Project: The emergence of group dynamics from social processes, a grounded theory constructivist approach

I wish to invite you to participate in my research on the above topic. Your participation is being sought as you are a member of the group that I wish to focus on in my research. The details of the study follow, and I hope you will consider being involved. I am conducting this research project for my PhD at the University of New England. My supervisors are Professor Ray Cooksey, and Professor Alison Sheridan of the University of New England. Professor Ray Cooksey can be contacted by email at rcooksey@une.edu.au or by phone on 02 6773-2563. Professor Alison Sheridan can be contacted by email at asherida@une.edu.au or by phone on 02 6773-2304. I can be contacted by email at kwolodko@une.edu.au or phone on 0413-567-174

Aim of the Study: Gain an understanding of group dynamics as they relate to group social processes, shaped within a contextually dense organisational landscape and filtered by a group's individual and world experiences.

Group Observation: I am seeking your permission to act as a participant observer to your group meetings, not taking an active role, but recording social processes as they occur during the meetings. I will be recording those incidents of social processes in a written journal and through the use of transcription of the group meeting voice recording. I will position myself outside of the group circle, not offering, nor accepting to participate in the group meeting process at any level.

Time Requirements: As a participant, you will be asked to participate in one or more one on one interviews, some of which may focus on social processes I observe during group meetings. These interviews would last approximately 30-60 minutes and will be recorded within a written journal and using the audio recording.

Interviews: A loosely structured focused interview method will be applied as one of the methods of data collection, an interview process that is not structured around a set questions format or order, but is guided by the research questions (Minichiello et al., 2008). Loosely structured focused interviews entail an interaction between researcher and participant that approaches a similarity to the normal everyday conversation. The conversation(s) to maintain an interview format that is guided by the research questions of this study. This may limit the depth of data related to social process but will ensure that the data collection does maintain a relationship with the research questions.

These interviews will be voice recorded, and I will be maintaining a written journal recording social processes and my preconceptions regarding those social processes. Following the interview, a transcript will be provided to you to confirm content. All participants can be quoted, with those quotations appearing in my final dissertation to support my substantive theory development. Any information or personal details gathered in the course of the study will remain confidential. No individual will be

identified by name in any publication of the results. All names will be replaced by pseudonyms; this will ensure that you are not identifiable. The voice recordings will be kept in a locked filing cabinet at the researcher's office. The transcriptions and other data will be kept in the same manner for five (5) years following thesis submission and then destroyed. Only the investigators will have access to the data.

Participation is voluntary. If you decide to participate, you are free to withdraw your consent from the project and discontinue at any time without having to give a reason and without consequence if you decide not to participate or withdraw at any time. It is unlikely that this research will raise any personal or upsetting issues, but if it does, you may wish to contact your local Community Health Centre 6776-9600.

Research Process: It is anticipated that this research will be completed by the end of 2014. The results may also be presented at conferences or written up in journals without any participant identifying information.

This project has been approved by the Human Research Ethics Committee of the University of New England (Approval No. HE11-199, Valid to 24/11/2012)

Should you have any complaints concerning the manner in which this research is conducted, please contact the Research Ethics Officer at the following address:

Research Services
University of New England
Armidale, NSW 2351.
Telephone: (02) 6773 3449 Facsimile (02) 6773 3543
Email: ethics@une.edu.au

Thank you for considering this request, and I look forward to further contact with you.

Regards

Keith Wolodko

Consent Form for Group Participants

Research Project: The emergence of group dynamics from social processes, a grounded theory constructivist approach

Please circle your response to each of the following questions, then sign and date the consent form below.

I have read the information contained in the Information Sheet for Group Participants, and any questions I have asked have been answered to my satisfaction. Yes/No

I understand and agree to Mr Wolodko observing group meetings that I will be attending. Yes/No

I understand and agree that Mr Wolodko will not be a participant in the group meetings. Yes/No

I understand and agree that Mr Wolodko will conduct one on one interviews outside of group meeting time. Yes/No

I agree to the interview being voice recorded and transcribed. Yes/No

I agree that research data gathered for the study may be published and understand that if I am directly quoted my responses will be identified using a pseudonym and not my actual name. Yes/No

I agree to participate in this activity, realising that I may withdraw at any time. Yes/No

Participant

Date

Researcher

Date

APPENDIX 6

INFORMED CONSENT FOR CURRENT AND HISTORICAL DOCUMENTS

Information Sheet for Access and Review both Historical, and Current Focal Group Documentation

Research Project: The emergence of group dynamics from social processes, a grounded theory constructivist approach.

I wish to invite you to participate in my research on the above topic. Your participation is being sought as you are a member of the group that I wish to focus on in my research. The details of the study follow, and I hope you will consider being involved. I am conducting this research project for my PhD at the University of New England. My supervisors are Professor Ray Cooksey, and Professor Alison Sheridan of the University of New England. Professor Ray Cooksey can be contacted by email at rcooksey@une.edu.au or by phone on 02 6773-2563. Professor Alison Sheridan can be contacted by email at asherida@une.edu.au or by phone on 02 6773-2304. I can be contacted by email at kwolodko@une.edu.au or phone on 0413-567-174

The aim of the Study: Gain an understanding of group dynamics as they relate to group social processes, shaped within a contextually dense organisational landscape and filtered by a group's individual and world experiences.

Access and Review both Historical and Current Focal Group Documentation: I am seeking your permission to access and review both historical and current group documentation generated through the group's activities (Wolodko, 2011). Both historical and current documentation would be in either written or voice recorded form and was the direct product of the group activities. An example of historical or current group documentation would be, meeting minutes, voice recordings of meetings, and documentation generated through the group's activities to meet a research or special group project demands.

Time Requirements: As a participant, you will be asked to provide documentation that you currently have on file that meets the documentation parameters listed above. This documentation will be added to the data set of the group social processes, along with the recording of my preconceptions regarding those social processes. All participants can be quoted, with those quotations appearing in my final dissertation to support my substantive theory development. Any information or personal details gathered in the course of the study will remain confidential. No individual will be identified by name in any publication of the results. All names will be replaced by pseudonyms; this will ensure that you are not identifiable. Both the historical and current group documentation will be kept in a locked filing cabinet at the researcher's office. The transcriptions and other data will be kept in the same manner for five (5) years following thesis submission and then destroyed. Only the investigators will have access to the data.

Participation is voluntary. If you decide to participate, you are free to withdraw your consent from the project and discontinue at any time without having to give a reason and without consequence if you decide not to participate or withdraw at any time. It is unlikely that this research will raise any personal or upsetting issues, but if it does, you may wish to contact your local Community Health Centre 6776-9600.

Research Process: It is anticipated that this research will be completed by the end of 2014. The results may also be presented at conferences or written up in journals without any participant identifying information.

This project has been approved by the Human Research Ethics Committee of the University of New England (Approval No. HE11-199, Valid to 24/11/2012)

Should you have any complaints concerning the manner in which this research is conducted, please contact the Research Ethics Officer at the following address:

Research Services
University of New England
Armidale, NSW 2351.
Telephone: (02) 6773 3449 Facsimile (02) 6773 3543
Email: ethics@une.edu.au

Thank you for considering this request, and I look forward to further contact with you.

Regards

Keith Wolodko

Consent Form for Access and Review Historical, Internal Focal Group Documentation

Research Project: The emergence of group dynamics from social processes, a grounded theory constructivist approach

Please circle your response to each of the following questions, then sign and date the consent form below.

I have read the information contained in the Information Sheet for Access to both Historical and Current Focal Group Documentation and any questions I have asked have been answered to my satisfaction. Yes/No

I understand and agree to Mr Wolodko accessing and reviewing both historical and current group documentation generated through the group's activities. Yes/No

I understand and agree that Mr Wolodko will not be accessing or reviewing historical and current group documentation that was not produced through group activities. Yes/No

I understand and agree that Mr Wolodko can request copies of historical and current group documentation that was not produced through group activities. Yes/No

I agree to the historical and current group documentation found in the form of voice recordings to be transcribed. Yes/No

I agree that research data gathered for the study may be published and understand that if I am directly quoted my responses will be identified using a pseudonym and not my actual name. Yes/No

I agree to participate in this activity, realising that I may withdraw at any time. Yes/No

Participant

Date

Researcher

Date

APPENDIX 7

INFORMED CONSENT PARTICIPANTS EXTERNAL TO THE GROUP

Information Sheet for Participants External to the Group of Interest

Research Project: The emergence of group dynamics from social processes, a grounded theory constructivist approach.

I wish to invite you to participate in my research on the above topic. Your participation is being sought because you have a formal relationship with the group my research is focusing on. The details of the study follow, and I hope you will consider being involved. I am conducting this research project for my PhD at the University of New England. My principal supervisor is Professor Ray Cooksey; my co-supervisor is Professor Alison Sheridan of the University of New England. Professor Ray Cooksey can be contacted by email at rcooksey@une.edu.au or by phone on 02 6773-2563. Professor Alison Sheridan can be contacted by email at asherida@une.edu.au or by phone on 02 6773-2304. I can be contacted by email at kwolodko@une.edu.au or phone on 0413-567-174

Aim of the Study: Gain an understanding of group dynamics as they relate to group social processes, shaped within a contextually dense organisational landscape and filtered by a group's individual and world experiences.

Time Requirements: As a participant, you will be asked to participate in one or more one on one interviews, as dictated by the level of your formal involvement with the group. These interviews would last approximately 30-60 minutes and will be recorded within a written journal and using the audio recording.

Interviews: A loosely structured focused interview method will be applied as one of the methods of data collection, an interview process that is not structured around a set questions format or order, but is guided by the research questions (Minichiello et al., 2008). Loosely structured focused interviews entail an interaction between researcher and participant that approaches a similarity to the normal everyday conversation. The conversation(s) to maintain an interview format that is guided by the research questions of this study. This may limit the depth of data related to social process but will ensure that the data collection does maintain a relationship with the research questions.

These interviews will be voice recorded, and I will be maintaining a written journal recording social processes and my preconceptions regarding those social processes. Following the interview, a transcript will be provided to you to confirm content. All participants can be quoted, with those quotations appearing in my final dissertation to support my substantive theory development. Any information or personal details gathered in the course of the study will remain confidential. No individual will be identified by name in any publication of the results. All names will be replaced by pseudonyms; this will ensure that you are not identifiable. The voice recordings will be kept in a locked filing cabinet at the researcher's office. The transcriptions and

other data will be kept in the same manner for five (5) years following thesis submission and then destroyed. Only the investigators will have access to the data.

Participation would be voluntary. If you decide to participate, you are free to withdraw your consent from the project and discontinue at any time without having to give a reason and without consequence if you decide not to participate or withdraw at any time.

It is unlikely that this research will raise any personal or upsetting issues, but if it does, you may wish to contact your local Community Health Centre 6776-9600.

Research Process: It is anticipated that this research will be completed by the end of 2014. The results may also be presented at conferences or written up in journals without any participant identifying information.

This project has been approved by the Human Research Ethics Committee of the University of New England (Approval No. HE11-199, Valid to 24/11/2012)

Should you have any complaints concerning the manner in which this research is conducted, please contact the Research Ethics Officer at the following address:

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University of New England
Armidale, NSW 2351.
Telephone: (02) 6773 3449 Facsimile (02) 6773 3543
Email: ethics@une.edu.au

Thank you for considering this request, and I look forward to further contact with you.

Regards

Keith Wolodko

Consent Form for Participants External to the Group of Interest

Research Project: The emergence of group dynamics from social processes, a grounded theory constructivist approach

Please circle your response to each of the following questions, then sign and date the consent form below.

I have read the information contained in the Information Sheet for Participants External to the Group of Interest and any questions I have asked have been answered to my satisfaction. Yes/No

I understand and agree that Mr Wolodko will conduct one on one interviews. Yes/No

I agree to the interview having my voice recorded and transcribed. Yes/No

I agree that research data gathered for the study may be published and understand that if I am directly quoted my responses will be identified using a pseudonym and not my actual name. Yes/No

I agree to participate in this activity, realising that I may withdraw at any time. Yes/No

Participant

Date

Researcher

Date

APPENDIX 8**MEMO EXAMPLES**

Memo 20049

Document Interviews\Interview Jean Final

Author keith_000

Codes Trait\Passive\ (Jean ZXQ)

Jean identifies Ann as the leader of [First Program] award course

Memo 20047

Document Interviews\Interview Ann Final

Author keith_000

Codes Trait\Domineering\ (Ann SFE)

Ann has expressed a greater comfort level with a small group this is evidence of that comfort level.

Memo 20051

Document Jun 12 Mtg\Jun 12 Meeting Trans

Author keith_000

Jean tries to control the direction of this DC because she does very little research and does mostly constancy work which gives her buy out for marking.

Memo 20247

Document Feb 12 Mtg\Feb 12 Meeting Trans

Author keith_000

Jean represents Ann interests when Ann is not at the group meeting.

Memo 24753

Document Interviews\Interview Jean Final

Author keith_000

Friction between the old ([First Program] award) course and the new ([First Program] award) course (Major 7).

Memo 20031

Document Interviews\Interview Jean Final

Author keith_000

The key point on the conflict resolution philosophy that this team member wants to achieve.

APPENDIX 9

MEETING MINUTES

Education Group Meeting Minutes

Minutes of the Meeting of the [First Program] (award) course

Held on Monday 12 October 1998 at 1:00 P.M. in Room 101, TREW Building.

Apologies: Ms DB

Present: Assoc. Prof Ann, Ms JA, Ms SB, Mrs JGS, Dr DL, Ms KP, Dr JR, Ms KW Mrs JS (Secretary)

1. Confirmation of the Minutes of the Meeting of 14 September 1998
 - 1.1. Mrs JG moved that the Minutes be accepted. Seconded: Ms KP.
2. Welcome and Thank You
 - 2.1. Assoc Prof Ann welcomed Ms SB to the meeting and Dr DL back to the country. Ms SBs will be representing external vocational program provider in [First Program] award while Ms JA is on Long Service Leave.
3. Business Arising from the Minutes
 - 3.1. The Chair reported that the University of ERT has just written a new Special Needs unit. LN is prepared to help write a new unit at this University.
 - 3.2. Leadership units are still under discussion with Assoc Prof RT
4. General Business
 - 4.1. Applications and Re-Enrolments for 1999 ". brief report
 - 4.1.1. Re-enrolment forms will be posted to students by the end of October. A letter regarding the Residential School will be forwarded to continuing students in the package.
 - 4.1.2. Applications to date: 271
 - 4.1.3. Assoc Prof Ann has had preliminary discussions with the Dean with regard to a July intake and extra staff, which may be required.
 - 4.2. Staffing - brief report
 - 4.2.1. The new Lecturer position has been advertised in The Paper. This will maintain the current four positions. Extra staff will be contracted to write new units (and assist with marking as required).
 - 4.3. Standard Unit Evaluations - Doing, collecting, sharing across Faculty - defer to November meeting
 - 4.3.1. For discussion at the November meeting - what issues should be shared? Should it be public information?

-
- 4.4. Education Industry Reference Network - discuss roles and members; date to meet
 - 4.4.1. Document tabled.
 - 4.4.2. Discussion
 - 4.5. Strategic Planning & Course Review
 - 4.5.1. A separate report will be prepared. The meeting was followed by a 2-hour workshop, which explored various course options and formats for the future.
 5. Other Business
 - 5.1. Childcare Centre - forward to November meeting
 6. Next Meeting
 - 6.1. Meeting dates for the remainder of 1998 are as follows: Monday 9th November and Monday 7th December Meeting closed 2.15 p.m.

APPENDIX 10

INTERACTION COUNT DATA MATRIX

	Sue	Joan	Lori	Jenny	Betty	Barb	Jane	Ann	Jean	Katie
Sue	0	31	260	35	4	10	30	236	123	16
Joan	31	0	121	32	4	13	31	66	29	16
Lori	260	121	0	115	128	212	629	1222	1149	113
Jenny	35	32	115	0	27	19	34	90	57	6
Betty	4	4	128	27	0	60	203	294	353	37
Barb	10	13	212	19	60	0	122	163	174	31
Jane	30	31	629	34	203	122	0	511	718	138
Ann	236	66	1222	90	294	163	511	0	978	46
Jean	123	29	1149	57	353	174	718	978	0	163
Katie	16	16	113	6	37	31	138	46	163	0
Total	745	343	3949	415	1110	804	2416	3606	3744	566
% Total	4.21%	1.94%	22.31%	2.34%	6.27%	4.54%	13.65%	20.38%	21.15%	3.20%