The effects of scenario planning on participant perceptions of grief in organisational change

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Abstract: This study examines the relationship between scenario planning and participant perceptions of grief in organisational change. Scenario planning projects were designed and facilitated for each of the four organisations as part of an applied research project utilising quasi-experimental research methods. The literature review and theoretical framework in the study focused on the social relationships associated with: 1) resistance to change; 2) perceptions of complex change; 3) loss and grief; 4) coping skills and complex change in organisations. Utilising the scenario planning framework was hypothesised to decrease the amount of grief within the organisations experiencing significant grief and complex change. The findings of the study indicated the scenario planning intervention significantly increased participant reports of grief in organisational change processes. While this is contrary to research hypotheses, various possible explanations are offered, though additional research will be required to further understand the impact of scenario planning on grief management in organisations.

Keywords: scenario planning; grief management; change management; effects of scenario planning.

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1   Introduction

The purpose of this paper is to document the effects of scenario planning on participant experiences of complex transitions in the workplace. Many organisational transitions can have negative and long-lasting effects on employee performance and social relationships (Bridges, 2009). For example, layoffs have effects which can last years when considering the loss some feel when a longtime colleague is let go. Changes in workplace structure, communities, cultures and traditions can impact employee identity and then performance and morale (Bell and Taylor, 2011; Conroy and O'Leary-Kelly, 2014). Often, the personal emotional responses to major change initiatives include anxiety and depression, similar to those experienced in grieving processes throughout human life.

Change management is a discipline growing in utility and popularity (Burke, 2013; Cummings and Worley, 2014). While the idea of managing change resonates with many people, relatively few tools for actually managing transitions in organisations are available beyond simple, popular psychology books. Concrete tools are needed to help manage reactions to change and the emotions which often accompany it to aid in supporting the social relationships critical to organisational life. Some tools exist that have been suggested as change management tools, though research is often lacking (Cummings and Worley, 2014).

Scenario planning has primarily been used as a strategic management tool (Chermack and Swanson, 2008; Schoemaker, 1995), though a side benefit has been realised because of its focus on participation and integration of multiple diverse voices in the planning process (Cardoso and Emes, 2014). For example, dialogue and communication skills are a secondary outcome of scenario planning (Veliquette et al., 2012). Scenario planning has also been shown as a process for developing a learning culture (Goodwin and Wright, 2010; Haeffner et al., 2012; Ramírez et al., 2013) and improving leadership development (McWhorter et al., 2008). While none of these were planned outcomes by scenario planning pioneers, the shifts have been documented in rigorous research studies and are clear.

This research explores a new variable in the scenario planning process by examining how scenario planning can help organisational members cope with transitions and complex change in the workplace. Further, this research explores the possibility of scenario planning as a change management tool to help employees overcome resistance to change and the emotions that often accompany it by featuring the social relationships highlighted in the scenario planning process.

1.1   The problem

As the literature and research on change management continues to grow, it remains difficult to find concrete, unique and innovative tools for managing change (Burke,

2013). In particular, tools for helping individuals and decision makers understand the change process, common reactions to it and strategies for managing it are scarce. Therefore the problem at the core of this research is:

> "Tools for managing the change process, common reactions to it and for supporting social relationships through change interventions are poorly defined and difficult to locate."

Social relationships are critical for managing resistance to change (Conroy and O'Leary-Kelly, 2014). Given the importance of social interaction in managing individual and team changes, the ability to define and describe concrete tools and processes for managing change would be useful. As scenario planning is a process which helps individuals manage their reactions to change and support social networks in organisations, the research question for this study is as follows:

> "What are the effects of scenario planning on participant perceptions of grief associated with organisational change?"

2 Theoretical framework

This research draws on four categories of foundational research and theory. These are:

- resistance to change

- perceptions of complex change

- loss and grief

- coping skills and complex change in organisations.

These four domains guide the logic and rationale for the study, and provide the foundational theories which frame the research project. In addition, a brief review of scenario planning is provided.

2.1 Resistance to change

Bridges (2009) described organisations today as experiencing an evolutionary shift. The norm of change, he explained, is so rapid and constant it is those who understand this evolutionary shift who ultimately succeed: "It is not by competing but by capitalising on the rapid pace of change that today's organisations will thrive" (Bridges, 2009, p.112). Yet, the most common explanations for an organisation's failure to successfully manage change are internal factors (Gilley et al., 2009, 2010).

Research has sought to understand why resistance is such a common response to change in organisations (Bridges, 2009; Norman et al., 2010; Saksvik and Hetland, 2009). Three probable reasons for the resistance to change are:

- change can immobilise an individual

- change can invoke anxiety

- change can invoke fear of failure.

Employees often become immobilised when organisations enter into a confusing state, when old ways are unsatisfactory and new ways are not yet fully developed or understood. Bridges (2009) explained change stirs deep within individuals, evoking failures from the past to surface and thus affecting their behaviour. High change environments often cause employees to become anxious, as new beginnings underscore the end of something and trigger old insecurities (Shepherd et al., 2011). These emotions centre on an employee's gap between their ideal self-vs. their 'ought' self (Conroy and O'Leary-Kelly, 2014). It is the gap between where they feel they want to be vs. where they should be with regards to the complex change. Further, a turbulent environment will usually provoke the fear of failure (Bridges, 2009; Fugate et al., 2011; Ramírez et al., 2010; Shepherd et al., 2011), a natural response when facing the unknown. Fear of failure serves as a reminder of previous attempts at change that may not have been successful. Finally, it is common for employees to slip into behavioural patterns characterised by low accountability, challenging morale and drops in performance that can be difficult to break (Bridges, 2009; Norman et al., 2010).

Other potential explanations for the seemingly natural resistance to change that often occurs among employees may stem from existing conflicts with current organisational culture (Gilley et al., 2010; Schein, 2013). The lack of reward and recognition for an employee who accepts change; and realisation that change can bring the loss of power and control to the individual (Gilley et al., 2010; Rogers, 2003; Trader-Leigh, 2002) may lead employees to resist change.

Recognising the common reactions and often negative perceptions of change initiatives is critical to increasing employee success and transition (Armenakis et al., 1993; Eby et al., 2000). Momentum, excitement, and buy-in towards the change must be cultivated and any change intervention must be explained to and understood by those who will undergo it (Armenakis et al., 1993; Bridges, 2009; Eby et al., 2000; Fugate et al., 2011).

2.2 *Individual perception of complex change*

Individual perceptions of change take many forms. Literature has presented two competing ideas. The first perspective posits impacts of organisational change as a negative to those involved. Depression, grief, and denial are common negative expressions from individuals undergoing changes in their professional lives (Fugate et al., 2011; Kearney and Hyle, 2003). Begley and Czajka (1993) theorised it is those highly committed employees who feel more stress during change due to their deep-rooted commitment and identity within the organisation. During times of great change this identity is threatened, therefore provoking negative perceptions.

The second perspective theorises the impact of organisational change is the opposite, more of a positive outlook. Kearney and Hyle (2003) found respondents to organisational change reported feeling bouts of optimism, relief, and even hope. From this perspective, changes can bring the renewal of the organisation; therefore leading employees to a more positive and opportunistic perspective. Additionally, a lower level of commitment among employees within the organisation was found to lead to lower levels of stress and an overall better impression of organisational change (Begley and Czajka, 1993).

It seems clear that organisational change affects people's perceptions. Perceptions can vary drastically and are dependent upon many unknowns, often outside the workplace.

Research is inconclusive regarding any consistent predictor of an individual reaction to change. If we want to better understand how an employee perceives the change around them, we must take into consideration the many other factors that lye hidden.

2.3   Loss and grief in organisations

Numerous studies and theories have been assessed surrounding grief and bereavement relative to the death of loved ones (Hazen, 2008). These studies focus on the stages of grief and the ability to help individuals successfully navigate through the grieving process. One of the common theories to receive mainstream popularity on the bereavement process was developed by Kubler-Ross and Kessler (2005). Kubler-Ross's work identified five stages of grief: denial, anger, bargaining, depression, and finally acceptance. These stages are commonly observed in other, less impactful events in employees' lives, including changes in the workplace (Bridges, 2009). A promotion in the organisation, move to another organisation, and career changes all carry the realities associated with the need to become oriented to a new work environment. Bell and Taylor (2011) likened the reactions of loss in an organisational context to the reactions of an individual death or loss of a loved one. Applying Kubler-Ross's five stages of grief (2005) to an organisation could be instrumental in ensuring a positive outcome to complex change.

Employees in the workplace who experience loss, whether through the failure of a project (Shepherd et al., 2009), a change in leadership (Hazen, 2008), or through the initiation of a merger or acquisition, will need to individually and as a group, process the situation in their organisational setting. Their social relationships and processes for adjusting to new circumstances are similar to an individual's grieving process; it is a work related identity (WRI) loss (Conroy and O'Leary-Kelly, 2014). As the death of a loved one required the grieving process, there are specific work related processes employees go through when they experience a WRI loss. While researchers do not identify an ideal time frame for employees to overcome their individual grief, they do agree that a structured process is useful in supporting the employees (Gilley et al., 2009; Hazen, 2008). Any complex change or loss in an organisational setting, that goes unaddressed, has the potential to impact the productivity and financial stability of the company.

Research on resilience has referenced the characteristics which enable an individual's ability to face an adverse situation and still exhibit appropriate, positive responses (Bonanno, 2004; Fugate et al., 2011). Challenging, organisational situations stress employee's identity and social relationships and can be defined as adverse conditions. Bonanno's (2004) focus on resilience illustrated organisational death, loss, and grief as common themes in the workforce, though often unrecognised, where preparation is critical to a successful outcome. He hypothesised when adults exhibit an "isolated and potentially highly disruptive event" (Bonanno, 2004, p.20), it is critical for them to have a mechanism to process the situation both physically and psychologically to ensure future success. In our research studies, scenario planning was the active mechanism allowing employees to envision future outcomes to their new situation.

Research on complex change and employee loss in organisations has a limited set of research findings when compared to individual death or grief. While Bonanno's (2004) studies were focused on grief and bereavement with reference to the loss of a close friend or family member; he did make the correlation between grief and trauma symptom

outcomes. "The basic outcome trajectories following trauma tend to form patterns similar to those observed following bereavement" (Bonnano, 2004, p.24). In the case of layoffs, the loss of a long-term colleague has arguably similar dimensions to bereavement which employees will need to process. In particular, when considering time spent with a colleague, it may, in some cases exceed the time spent with a loved one or family member. The loss of the old way of doing things is dynamic for each employee (Conroy and O'Leary-Kelly, 2014). Bauer and Bonanno (2001) acknowledge the lack of research available detailing the daily dealings of individuals throughout complex change. Without working through the emotions and stages associated with complex change, individuals in organisations will continue to struggle with efficiency and productivity.

Research in the area of resistance to change ultimately involves a core concept – change is personal for each employee (Bridges, 2009; Gilley et al., 2010; Schein, 2013). If decision makers wish to overcome resistance, recognition of the deep personal impacts on the individuals involved needs to be acknowledged. The past must be honoured as it is a highly personal matter in moving forward with the new way of doing things. As Bridges (2009) explained, a change to what used to be, without clear explanation of why, is regarded as a direct attack on ones self-worth and often leads to feelings of loss and grief.

2.4   Coping skills and complex change in an organisation

The constant state of change occurring in most organisations creates high levels of stress among employees (Cummings and Worley, 2014). Bridges (2009) recognised it is no longer one change occurring in individual's lives but more of "an ongoing phenomenon" (p.99). The pace of change and the expectations of the workforce continue to pose challenges for organisations based on the various coping mechanisms available for managers and human resource professionals. Terry (1991) defined coping as the "cognitive and behaviour efforts that are expended by an individual with the intention of reducing the effects of change" (p.1031). While the focus of this study is on complex change relative to organisational stressors, many employees learn their coping mechanisms at a young age, in early childhood, or adolescence. While the situations may seem more simplistic in adolescence, people tend to learn strategies for minimising the stress associated with complex situations facing them which are then applied in increasingly complex situations. These social relationship and coping skills are critical to managing complex changes in an organisation.

Maddi (2002) posits there are opportunities for companies to positively influence employees experiencing problems coping with complex change. "Stressful changes can be debilitating for some people, but perhaps developmentally provocative for others" (Maddi, 2002, p.173). He suggested organisational leaders should make efforts to recognise those who are comfortable with change and those who are struggling with it. Social relationships, support, and coping skills are three critical factors to help mitigate the stress surrounding complex changes. People have the ability to work through difficult situations when they are encouraged by like-minded individuals around them (Maddi, 2002). He further highlights the importance of social relationships in coping. Individuals will manage each situation differently in order to mitigate the stress they are experiencing around complex change. It is imperative for organisations to provide as many resources, from various theories to ensure a positive outcome. Scenario planning can act as the tool

for the team and/or individuals to address and acclimate to complex change in their organisation.

2.5 Scenario planning

Scenario planning is an alternative approach to strategic planning featuring the search for critical uncertainties and predetermined elements to reshape the business environment (Wack, 1985). Scenario planning uses a diverse set of viewpoints to question the common wisdom of the organisation and purposefully asks decision makers to explore the assumptions driving their views on the market, competition, capabilities and other aspects of organisational strategy (Wilkinson and Kupers, 2014; Goodwin and Wright, 2010). It requires employees to acknowledge change is imminent in their organisation, industry, and even themselves over the next three to ten years.

One of the important components of scenario planning is the makeup of the team (Chermack, 2011; Schoemaker, 1995). Most scenario planning experts agree a cross-section of the organisation is the goal, along with outside experts (Cardoso and Emes, 2014; Schoemaker, 1995; Schwartz, 1991; Van Der Heijden, 1997, 2005; Wilkinson and Kupers, 2014). However, beyond that, the perspectives of the team members, their open mindedness, their line of sight over the organisation or a critical function within and a propensity to think differently are valuable (Chermack, 2011; Goodwin and Wright, 2010). All of these characteristics provide the means through which to explore how decisions might be made differently, how conventional wisdom in the organisation may not fit with reality and thus can spark creative thinking about how best to navigate uncertain and ambiguous situations (Meissner and Wulf, 2013).

The scenario planning team is charged with hosting a set of structured workshops and guiding organisational members through brainstorming, ranking and other exercises to lead to the identification of the uncertainties relative to a critical question – the forces that have the potential to fundamentally alter the operating environment yet are not well understood in term of how they will play out in the future (Cardoso and Emes, 2014). These workshops and exercises are the forums in which people can express their historical perspectives, make their assumptions explicit and challenge their colleagues in a safe environment guided by a trained facilitator. Scenario planning has been conceptually pinned down as a tool for holding important and sometimes tense conversations about how the organisation operates and to question the ways in which it is being managed (Cardoso and Emes, 2014; Wack, 1985; Wilkinson and Kupers, 2014). These workshops provide a place for participants to work through complex changes, current or previous, with the support and challenges of their colleagues, the latter of which makes scenario planning a sometimes delicate, but critically important process (Chermack, 2011).

Hypotheses. Given these foundational perspectives, it seemed logical to explore the potential utility of scenario planning as a tool for managing change and grief in organisations. Because the scenario planning process offers a place in which to have conversations about problematic, uncertainty and anxiety causing workplace events, it is posited as a potential tool for processing workplace grief. Often, employees in organisations become frustrated by a variety of factors brought on by significant change and the grief it sometimes brings. For this study, the goal was to explore scenario

planning as a possible change management and grief-processing tool. In this way, scenario planning is seen as potentially critical to supporting the social relationships in organisations during times of complex change or transitions.

> "Researchers therefore hypothesised a decrease in participant perceptions of complex grief as measured by the Inventory of Complicated Grief after participation in scenario planning."

The research hypothesis and the null hypothesis are indicated as follows:

H₀: $\mu_D = 0$

H₁: $\mu_D > 0$

3   Method

This section describes the sample, the research instrument, research design, data collection, scenario planning intervention and data analysis.

3.1   Sample

Research subjects were scenario planning participants in four organisations, in the Western United States from the healthcare and academic environments. The sample was a convenience sample of willing organisational members that elected to be involved in scenario planning following complex change within their organisations. While researchers were not able to develop a controlled study with random assignment, they did use four different organisations in two different industries, facing different changes and challenges. The study used a comparison group consisting of four other, similar organisations that did not use scenario planning in an attempt to increase study rigor, potentially further isolate any significant outcomes, and link them to the scenario planning intervention.

All of the organisations selected for participation were experiencing some kind of transition (e.g., layoffs, downsizing, restructuring, merger, and significant budget and resource cuts, among others). These transitions impact employees and are often not fully taken into account. Again, all organisations were experiencing some form of complex change in which employees reported feelings of anxiety, loss, or depression prior to the start of the scenario intervention. In all cases, scenario planning was undertaken as a means for coping and addressing complex change with the uncertainty that accompanied these transitions.

3.2   Instrument

The instrument used in this research was the Inventory of Complicated Grief (ICG). The ICG was developed in 1995 for use in contexts of bereavement and the transitions often seen in old age (Prigerson et al., 1995). Initial assessments of the instrument revealed a single underlying construct of complicated grief with generally high score reliability.

Over the last decade of change in corporate America, there have been additional studies performed on organisations focused on how employees handle the loss associated

with complex change (Conroy and O'Leary-Kelly, 2014; Shepard et al., 2009; Bell and Taylor, 2011).These complex changes have been described using words such as coping, grief, loss, and organisational death. While researching various instruments used in assessing employees reactions to complex change (e.g., coping, grief, loss, organisational death), the Inventory of Complicated Grief (ICG) portrayed the reactions and behaviours people exhibited within this study's organisations. Given the scenario planning's process intent is to help employees envision the potential future of their organisation (with all of the aspects of change that will be experienced, e.g., grief or loss), the researchers found similarities between the ICG measurements and the emotions felt by an individual when experiencing change within their organisation. The studies reviewed each referenced the original ICG's internal consistency of 0.94 and 0.92 Cronbach's Alpha with 0.80 test-retest reliability. The rigorous research design of the instrument and number of times it has been referenced in numerous studies (Table 1) allowed us to apply the ICG to the scenario planning project.

Table 1   Author, studies and number of participants using the ICG instrument

Author	Study	No. of participants
Ott (2003)	The impact of complicated grief on mental and physical health at various points in the bereavement process	120
Simon et al. (2011)	Informing the symptom profile of complicated grief	782
Kristensen et al. (2012)	Visiting the site of death: Experiences of the bereaved after the 2004 Southeast Asian tsunami	130

3.3   Research design

The research design was a Quasi-experimental, pre-test/post-test design with intervention and comparison groups. The intervention group consisted of scenario planning participants from four different organisations and the comparison group consisted of volunteers from four similar organisations not engaged in scenario planning.

3.4   Data collection

After gaining access to the four organisations for scenario planning projects, researchers briefed participants on the scenario planning process and the research that would take place. Consent forms were signed, with assurance of participation being voluntary and copies were provided for all participants. Pre-tests were administered with anonymous code indicators written on the paper surveys in order to match pre and post tests later for statistical analysis. For the control group, the survey was administered online to four other organisations in similar industries to the participating organisations.

The scenario planning intervention was delivered over the course of three to four workshops in each organisation, in which participants brainstormed, designed, developed and explored a set of scenarios. The scenarios were used to frame a critical decision and explore the impacts of different choices. The workshops were carefully designed and implemented according to the framework for performance based scenario planning (Chermack, 2011).

Upon completion of the scenario work, post-tests were administered, again in paper format for scenario planning participants. For the control group, the survey was conducted online, consistent with the pre-test format. Participants were given two weeks to respond with a reminder after one week. Incomplete or unusable responses were discarded from both pre- and post-test survey administrations.

3.5   *Description of the scenario planning intervention*

The value of the scenario planning process is predicated on two points:

- involvement and commitment of various levels within the organisations

- adherence to the five phases of scenario planning intervention (Chermack, 2011).

The five phases of scenario planning intervention as defined by Chermack (2011) are: project preparation, scenario exploration, scenario development, scenario implementation, and project assessment. Each will be explained below.

The goal of the project preparation portion of the scenario planning process is to align the project team on expectations and outcomes. The scenario planning team conducts interviews with key stakeholders in an attempt to understand what is going well and what is being challenged within the organisation. This time is used to explain the process, define the activities which will be in scope with their defined timeline, and to establish roles and expectations. The final part of the project preparation phase is to create a project proposal to present to the stakeholders of the organisations. This acts as the informal contract for the project.

The goal of the scenario exploration portion of the scenario planning process is to take the project proposal from the first phase and explore the possible influences in both the internal and external environment. Scenario planning requires the participants, facilitators, and management team to acknowledge as many of the internal and external influences which could impact the organisation in the next three to five years or per the agreed upon timeframe. Chermack (2011) suggests various tools to use in this phase varying from Social, Technological, Economic, Environmental, and Political (STEEP) Forces to a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis (Chermack and Kasshanna, 2007). The final part of the scenario exploration phase is to ensure the team is aligned with the potential influences which could impact the future of the organisation.

The scenario development portion of the scenario planning process is when the details surrounding the workshops are actually facilitated. The participants are encouraged to brainstorm any and all forces which could impact their organisation in the future during day 1 and share any new ideas at the start of day two. Day two activities work with the participants to rank the brainstormed items by impact on the horizontal axis – ranging from low to high and then the same items by uncertainty on the vertical axis – ranging from low to high. This allows the participants to assess the highest impact items and items with the highest uncertainty in determining the influences on their future strategy. Finally, the extreme outcomes related to impact and uncertainty are used to clarify and identify potential signals to plot for the future scenarios (Chermack, 2011, p.117).

The goal of the scenario implementation portion of the scenario planning process is to ensure participants from the workshop continue to socialise the information. There are

typically four activities which occur during this workshop: revisit the initial question or problem surrounding the possible future scenario of the company, take the learnings from the workshops and apply them to the scenario plots, expand on the signals which would identify that a scenario plot could be materialising, and create the narrative surrounding the actual scenario plots to be presented to the decision makers within the organisation.

The final phase of the scenario planning process is the project assessment review. This is important to any project to ensure there is a review of the lessons learned and to offer ways for the organisation to continue to socialise this information on a regular basis. The success of a scenario planning project is the continued reflection and review periodically of the internal and external environmental influences after the initial workshop. The project assessment phase allows the participants to continue to keep the activities explored in the workshop alive and visible to employees.

3.6 Data analysis

Data analysis included descriptive statistics, skewness, kurtosis, reliability, factor analysis and t-tests to determine the change in reports of grief over the course of the scenario project. Because the research sample involved four, separate organisations, Hierarchical Linear Modelling was also used to assess data variation across groups.

4 Results

The results of the data analysis are presented in the following section. Descriptive statistics are presented along with major assumptions underlying the analysis, followed by reliability, validity and the paired samples *t*-test statistics.

4.1 Descriptive statistics

Descriptive statistics were generated to examine critical data assumptions and to establish participant similarity (Table 2). Because researchers did not use random sampling or random assignment for either the intervention or comparison group, it was important to establish relative similarities between the two groups. In this case, researchers failed to collect organisational demographic data from the comparison group; however, the participant demographic data shows that participants were relatively similar in tenure in the organisation and position. Given the relative similarity between the intervention and comparison groups, the next step was to examine two critical assumptions that underlie the study, namely

- data normality
- independence of observations.

Data normality. For the dataset, skewness values ranged from 0.50 to 1.80. Kurtosis values ranged from0.91 to 2.50. While slightly positively skewed and slightly peaked, researchers proceeded with the assumption of relative normality as met as the condition of the data did not warrant the use of non-parametric statistics.

Independence of observations. In this study, data came from employees who were nested within organisations. To parse out differences among groups and compare response

pattern consistency across the four organisations, researchers used hierarchical linear modelling (HLM). To perform the HLM, researchers calculated a difference score between pre and post tests, and then analysed the data using interclass correlation coefficients (ICC). For the pre-test, the ICC was 0.00 (or 0.00%) and for the post-test, the ICC was 0.01 (or 1.00%). Lee (2000) indicated that any ICC value over 11.00% would require further examination. The data shows that responses did not vary significantly across organisations and the assumption of independence of observations is shown to be appropriate.

Table 2   Description of the organisations and participants

Demographic variables	Intervention group		Comparison group	
	n	*%*	*n*	*%*
Age of the organisation				
0–5	6	12.5	NA	NA
6–10	1	2.10	NA	NA
11–15	1	2.10	NA	NA
16–20	2	4.10	NA	NA
21+	38	79.20	NA	NA
Total number of employees				
Less than 100	14	29.20	NA	NA
101–500	10	20.80	NA	NA
501–1000	1	2.10	NA	NA
1001–10,000	16	33.30	NA	NA
10,001+	7	14.60	NA	NA
Tenure in the organisation				
0–2	7	14.60	5	11.40
3–5	6	12.50	5	11.40
6–10	17	35.40	16	36.40
10+	18	37.50	18	40.90
Position level				
Line worker	19	39.60	21	47.70
Middle manager	20	41.70	9	20.50
Senior manager	8	16.70	9	20.50
Total	*48*	*100.00*	*44*	*100.00*

4.2   Reliability

To assess reliability, Cronbach's Alpha was calculated for both the pre and post-test scores. For the pre-test, reliability analysis was 0.95, and for the post-test it was 0.97. There were no issues with the reliability of scores as both the pre and post-test analyses showed reliability estimates that were well above the recommended 0.70 (Nunnally, 1978).

4.3 Validity

Score validity was assessed using a factor analysis. In this case, researchers used Principal Axis factoring as a more conservative approach as the survey has a pre-determined theoretical, 1-factor structure.

Principal axis factoring. For the analysis, researchers assessed pre-test and post-test data separately. Analysis revealed a clear, single factor in both cases that explained 35.30% of the variance for pre-test data and 28.75% of the variance for the post-test data. Previous research using the same instrument by Simon et al., (2011) also showed loading on a single factor. Researchers considered using confirmatory factor analysis (CFA) as the Inventory of Complicated Grief has a history of use, but the sample size was not adequate to meet the assumptions of CFA.

4.3.1 Paired-sample t-tests

A paired-samples *t*-test was used to compare averaged pre-test scores to average post-test scores on the Inventory of Complicated Grief (Table 3).

Table 3   Paired samples *t*-test for the intervention group

Scale	MPre	M Post	M	SD	Std. error mean	t	df	Sig. (2-tailed)	d
Complex change	2.38	3.01	0.39	1.18	0.17	2.28	47	0.02*	0.33

The *t*-test results showed the reports of complex grief across all four participating organisations were significant; however, they were significant in the opposite direction from the study hypothesis. In other words, participant perceptions of complex grief were significantly *higher* after the scenario planning intervention ($t = 2.28$, $p = 0.02$). An effect size was also computed ($d = 0.33$) suggesting a medium effect in the sample group.

A paired samples *t*-test was then conducted for the comparison group (Table 4).

Table 4   Paired samples *t*-test for the comparison group

Scale	MPre	M Post	M	SD	Std. error mean	t	df	Sig. (2-tailed)	d
Complex change	2.79	3.00	0.28	1.90	0.12	1.03	47	0.78	0.06

For the comparison group, *t*-test results show no significant difference between pre and post test ($t = 1.03$, $p = 0.78$). The effect size was calculated to consider practical significance, but it was too small to indicate any meaningful differences in the comparison group.

5   Discussion

While the hypothesis of the study was not supported, there are important findings for the study on scenario planning, change and grief. The study found that the scenario planning

intervention actually *increased* reports of complex change and grief. Employee coping strategies, social relationships and meaning making, emotions in identity loss, and timing for scheduling scenario planning workshops are all possible factors that could account for our unexpected results. We will examine each of these and close the discussion section with an attempt to lend additional perspective to the relationship between complex change and scenario planning.

Employees manage change and grief in different ways (Lepore et al., 2000; Park and Ai, 2006; Taylor and Armor, 1996). Some employees may maintain an exaggerated view of their future (Taylor and Armor, 1996) while others may engross themselves in trying to establish the meaning behind the trauma or grief situation (Park and Ai, 2006; Conroy and O'Leary-Kelly, 2014). It is this same variation in dealing with an adverse condition as to why we hypothesised employees would feel better and cope better about the change at their work after participating in the scenario planning workshops. Potentially employees' coping mechanisms were exacerbated as part of the scenario planning workshops thus providing insight as to why our study hypothesis was not supported.

Lepore et al.'s (2000) literature review confirmed people who share a stressful life event; such as their feelings around change, reorganisations, or acquisitions are engaged in a positive step in the coping process. The thoughts and recursive nature of the stressor will decrease over time when shared with other people (Lepore et al., 2000; Conroy and O'Leary-Kelly, 2014). Yet, none of the papers the researchers reviewed suggested how long it takes to have the urgency of the change decrease. Thus, the scenario planning process may have occurred too closely to the stressor in the organisations where change had been implemented. If they did not have enough time to cope with the situation, they could have been still longing for how things used to be (Park and Ai, 2006; Conroy and O'Leary-Kelly, 2014). Without processing the grief associated with the complex change, it would be difficult for employees to successfully visualise the future of the organisation as required by the scenario planning process. Park and Ai's (2006, p.392) model on the process of meaning making defines global meaning as a reference to the beliefs, goals, and subjective sense of meaningfulness we apply to complex change and grief. The ability to make sense out of complex change and feelings relative to lack of control can be accomplished as employees acknowledge their beliefs, goals, and meaning making for each situation. Again, it is difficult to establish how long the process of determining global meaning and/or situational meaning will take for each employee following the complex change in their organisation. Thus, was the scenario planning workshops held too soon; before a majority of the participants were able to establish meaning from their organisation's change?

When we discuss emotions and identity reconstruction (Conroy and O'Leary-Kelly, 2014) relative to complex change, each individual manages the process through their own, personal and varied lens. While the narrative phase of the scenario planning process allows employees to voice their proposed organisational identity and to receive validation from their peers, some individuals may be cautious to share their feelings. In the situation where the end state of the complex change is evolving, the employees may not have a valid understanding of their new identity to share with others. And with the diversity of the workforce, some individuals may never come to realise a new identity in the workforce and thus, could hinder the productivity and morale of others.

In no part of the WRI research assessed is there any reference to the time that it may take for employees to process their emotional state in order to create a new identity. Therefore, it is difficult to know how soon after a WRI situation it would be most

effective to perform a scenario planning workshop. While scenario planning processes have been used in numerous industries undergoing or projected to undergo complex change, the loss of the individual employee identity has yet to be explored. While the employees are still grieving their old self, role and identity, potentially the scenario planning process as a healing process may not be realised.

As part of the scenario development phase of the scenario planning workshop, the participants struggled to see where they or their organisation may be in three to five years. Given the proximity to the complex change and their drive to still find meaning in the change, they had yet to complete the processing of their new identity. Conroy and O'Leary-Kelly (2014) define this intermediary time, as a time when employees are trying to let go of their old self and where the focus is on establishing their new self. Having not identified their own self may have hindered the participant's ability to realise the benefits of the scenario planning intervention.

While the scenario planning workshop included narratives and discussions of factors which may influence the company in the future, minimal attention was devoted to the individual and their role in the complex change. When this challenge arose in one of the workshops, the facilitators asked the participants to reflect on what they were doing three to five years ago. This was an invaluable exercise as the participants realised the amount of constant change occurring around us: some participants were not even part of the organisation five years ago, the organisation had looked completely different five years ago, and the leadership team had changed completely in such a short timeframe. By showing the employees that their roles and identities are constantly changing, they were better able to focus on the scenario planning workshop and the targeted end results.

6 Limitations and recommendations for future research

There are three major limitations to this research study. They are

1   the use of perception-based measures

2   the assumption of an appropriate measurement instrument

3   a lack of random sampling/assignment.

Each of these is described in more detail.

6.1 Perception-based measures

The research study used participant self-reported measures of complex grief as measured by the ICG instrument. Self-report, perception-based measures are not objective and can be questionable in terms of their validity (Sitzmann et al., 2010), even though researchers used principal axis factoring in an attempt to lend some description of score validity. Workshop participants may have recalibrated their perception or definition of grief between the pre-test and the post-test as an outcome of the Scenario Planning workshops. The study clearly involved perceptions of complicated grief and those perceptions are not an objective assessment of the complex change and complicated grief construct.

6.2   *Assumption of an appropriate measurement instrument*

This research used the ICG instrument, which was initially developed for use in instances of loss and bereavement of an individual. The logic for using the instrument was carefully laid out, but it is the first use of the instrument in a context of organisational change. The major assumption underlying its use is emotions provoked by organisational change and transitions are similar to those felt in major life changes (e.g., loss, depression, anxiety, etc…). Words were changed on the ICG instrument to ensure the survey items were contextually appropriate for use in the organisational context. The changes were consistent for each survey item.

6.3   *Lack of random sampling/assignment*

Finally, the study is not a true experimentally designed study and lacks full generalisability because it did not use random sampling or random assignment in the intervention or comparison groups. However, the quasi-experimental design represents "the best real world approximation of a true experiment" (Shadish et al., 2001, p.53). The quasi-experimental design is useful in organisational research as researchers in applied settings are not likely to gain support for truly randomised studies. Often times the pressures and time constraints faced by managers and executives dictate the use of convenience samples to further theory and research findings. Because the characteristics of the comparison group participants can be said to approximate the intervention group participants, the concerns of groups being significantly different from the start were somewhat diminished. It still remains though; the study does not involve random sampling or random assignment.

7   Future research

The post test for the scenario planning project was completed at the end of the scenario planning process and aligned to the recent complex change in the organisations. While the hypothesis for this project was null, research suggests the trend experienced in this study is common among employees who have recently experienced complex change, loss, or grief. Change theory and models of grief acknowledge acceptance of the loss felt by the individual as a complex process (Bridges, 2009). The desired outcome will vary among individuals depending on their social and professional support structures as shown by Lepore et al. (2000); thus we propose a retest of the sample of the scenario planning to further explore the original hypotheses. By providing additional time for the employees to cope with the change, the researchers suggest 3–6 months; the outcome of the pre-test/post-test results may support the original hypothesis of the study upon re-test.

8   Conclusions

This research study sought to understand the social relationship between scenario planning and participant perceptions of grief in organisational changes. The study used an intervention group consisting of four organisations and their scenario planning participants, and a comparison group consisting of four similar organisations that did not

use scenario planning. The study hypothesised that participation in scenario planning would reduce reports of grief. However, results showed the opposite –participant's reports of grief *increased* following the scenario planning workshop. We have offered some possible explanations for the research findings and acknowledge further research is required in order to deeply understand if and how scenario planning and grief in organisations are related. We have proposed one approach to continuing this line of research but certainly there are many other approaches that could be considered. While our findings were not expected, the study makes a contribution to the scenario planning and organisational change literature that might be considered a provocative and ripe area for fruitful investigation.

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