In this conceptual paper, we use a paradoxical lens to explore the strategic contradictions of leaders who are required to make balanced paradoxical choices, for example, when decision-making requires the identification of novel and creative solutions to difficult problems. We develop our perspective based on two recent large scale studies that delve into how curiosity is viewed and applied in contemporary firms. The results from these studies suggest a limited level of leader support for curious and enquiring minds; instead, they posit a position of top down decision-making as a means of managing risk. We also review the impact of cognitive bias when leaders consider their choice of decision-making approaches, either to provide exploratory support for curious enquiring minds or to maintain an exploitation position conducive to risk mitigation. We then move on to discuss the importance and relevance of contextual questioning in support of “playfulness,” as a means of enhancing curiosity and encouraging exploration. With curiosity and exploration being essential to the identification of novel solutions, we suggest that contextual questions are integral to paradoxical frames associated with curiosity and risk. Our aim is to contribute to paradox theory by expanding theoretical insights supportive of an integrative approach to contextual questioning enhanced by serious play. In this way, enriching outcomes that are associated with curiosity; most notably when there are paradoxical tensions between curiosity and risk. Finally, we provide three questions as stimuli for further empirical research.

**Keywords:** Paradox; Curiosity; Leadership; Strategy; Cognitive-bias; Decision-making
Introduction

There is a paradoxical conundrum associated with the ever-spiralling and regularly unfolding drama that is often linked with intensively competitive markets, where firms, industry sectors, and indeed government departments are rapidly absorbed and or replaced as a result of disruptive and more compelling alternatives (Christensen, 1997; Clegg, Cunha, & Cunha, 2002; Smith & Lewis, 2011).

In the context of this paper, we define the term paradox following Smith & Lewis (2011) as, “contradictory yet interrelated elements that exist simultaneously and persist over time; such elements seem logical when considered in isolation, but irrational, inconsistent and absurd when juxtaposed” (p.387). Furthermore, with the assistance of a diverse range of scholarly literature, we explore the dualities within paradoxes to gain greater insight and understanding of the necessary behaviors associated with the relationship between curiosity and risk. To do this, we examine two recent empirical studies based on the work of Gino (2018) and Kashdan (2015; Merck, 2016) both of whom focus on the role of leadership support for curiosity and in doing so, identify seemingly unbalanced paradoxical tensions that surface from their research.

Our focus is on paradoxes where the cognitive models of leadership are continually being challenged to ‘think differently’ (Mumford, Todd, Higgs, & McIntosh, 2017; Smith & Tushman, 2005). Though perhaps a more appropriate extension to this cognitive challenge could be not only to think different but also subsequently rapidly be different. From this perspective, the emphasis is on the underlying essential praxis of implementation (Jarzabkowski, Balogun, & Seidl, 2007). To do so requires the leadership of a firm to learn rapidly and subsequently generate new knowledge and insights essential to underpin the development of a firm’s innovation focused-strategy (Amabile, 1988; Hill, Brandeau, Truelove, & Lineback, 2014; Nonaka, 1994; Schweitzer & Gudergan, 2010). As such, curiosity in its various dimensions provides the necessary impetus for leaders to identify significant knowledge gaps and subsequently produce novel solutions to difficult problems (Chang & Shih, 2018).

We recognize curiosity as an innate multidimensional human motive (Grossnickle, 2016; Kashdan, Disabato, Goodman, McKnight, & Naughton, 2018; Kashdan et al., 2017; Litman, 2018; Mussel, Winter, Gelléri, & Schuler, 2011). Nevertheless, we take a broader definitional perspective based on the seminal work of Berlyne, (1954;1960) and define curiosity as “a desire for new information which is aroused by novel complex, or ambiguous
stimuli and motivates exploratory behavior,” as cited in (Litman, Collins, & Spielberger, 2005, p.1123). Moreover, scholars acknowledge that curious people respond to curious feelings with the intent of expanding their knowledge and augmenting their intellectual and creative capabilities, while also, cultivating their social relationships (Kashdan, Disabato, Goodman, McKnight, & Naughton, 2018a).

Recognizing and acknowledging the often complex knowledge requirements of a firm, requires its leadership to be analytical, creative, possessing an innate willingness to acquire and share new knowledge, accepting varying degrees of risk-taking, all in the pursuit of novel and creative outcomes (Amabile, Schatzel, Moneta, & Kramer, 2004; Mumford et al., 2017; Nonaka, 2007; Schweitzer, 2014). Leaders are required to make choices and allocate priorities to ensure alignment with a firm’s strategy (Sull, Turconi, Sull, & Yoder, 2017) while also being strategically agile (Lewis et al., 2014). Nevertheless, such demanding expectations create tensions often associated with a leader’s desire for increased performance within acceptable boundaries of risk (Hill et al., 2014). Under such circumstances, scholarly evidence suggests tensions exist between the desire for, and investment in, the acquisition of new knowledge in support of a firm’s stated performance requirements (Smith & Tushman, 2005).

Smith & Tushman (2005) further argue that tensions and contradictions often manifest through the differing approaches and behaviors used by leaders to solve problems. They posit when leaders use exploratory behavior to discover innovative opportunities, this often involves heuristic, or trial and error learning. Nonetheless, leaders are also required to balance exploratory behavior with a seemingly contradictory exploiting approach to problem-solving, where there is a disciplined and variance reducing behavior associated with past or established products and services, suggesting paradoxical tensions associated with leadership behavior (Zhang, Waldman, Han, & Li, 2015).

Theoretical background

A lack of scholarly consensus creates a challenge in defining leadership because of the diverse types of leadership and the wide-ranging views often dependent on which ‘lens’ is most appropriate to a specific leadership point of view (Bass & Bass, 2008). A similar position is argued by Alvesson & Spicer (2012) who posit that two-thirds of the leadership literature provides no clear definition, while the remaining third provides no consistent view, therefore adding to ‘conceptual’ confusion and widespread nebulousness. Based on the
relevance to this paper we have chosen Yukl's (2013) definition of leadership, suggesting leadership “is the process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish shared objectives” (p.23). Leadership is considered to be both a social and specialised process that can be associated with an individual, or distributed across many (Yukl, 2013).

Confronting the paradox challenge

To clarify further our understanding of the previously stated paradox conundrum, we initially explore key themes in order to reveal tensions that surface through the supporting literature. Secondly, we develop an indicative frame to illustrate the paradoxical tensions associated with curiosity and risk and the corresponding implications for strategic decisions. In this way, choosing to either explore or exploit potential solutions and outcomes. We further expand the paradoxical frame to explain the potential impact of cognitive bias as an unbalancing factor when attempting to manage the strategic paradox associated with curiosity and risk. Thirdly, we postulate the role of context questioning, which we define as those questions that support or relate to a central topic, issue or problem in need of resolution.

We see contextual questions to be integral to virtuous loops related to curiosity and risk. Fourth, we explore how virtuous loops support curiosity through the concept of “serious play” (Jacobs & Statler, 2006) and then in a more rational sense, in support of risk. Further, we review an ambidextrous approach to determining rational paradoxical positions that either explore or exploit identified opportunities (Benner & Tushman, 2003). We finally consider the benefits of a paradoxical mindset as an essential attribute of leaders who need to manage paradoxical tensions and therefore, develop a balanced paradoxical view (Keller & Chen, 2017).

Our aim is to understand how a firm’s leadership supports paradoxical tensions associated with curiosity and risk. We do this by drawing on two recent large-scale studies conducted by Gino (2018) and Kashdan (2015; Merck, 2016), who with their evidence-based research provide insights into a diverse range of leadership views, linked with the adoption and rejection of curious behaviors within firms. We subsequently review these insights through a paradoxical lens and develop a paradoxical frame with the intent of further exploring and ultimately gaining a rich understanding of the associated leader conundrum when considering the paradoxical tensions of curiosity and risk.
Case illustrations and insights

A recent study conducted by Gino (2018) of 3,000 international employees revealed the implications of curiosity in the work environment and the corresponding level of leadership support for curiosity. Gino (2018) claims that curiosity is a significant contributor to a firm’s performance because of three fundamental reasons. First, when curiosity is triggered, there is a tendency for leaders to think more intensely and rationally when considering decision-making. Second, curiosity increases the level of adaptability of leaders and their teams to the dynamics of uncertain market environments. Third, the followers of curious leaders demonstrate higher levels of respect for their leaders.

In a similar study of 3,000 workers across 16 industries conducted for Merck KGaA (Merck, 2016), Kashdan (2015) posits three significant stifling effects associated with support for curiosity. These include autocratic, top-down decision-making, implying curious minds were not provided with the opportunity to explore decisions in search of potential best options. Second, creative thinking time was restricted due to an inclination to support proven safe ideas, denoting a risk-averse position of leadership (Hill et al., 2014). Third, a fear of standing out from others often associated with being more interested and curious when compared to others in the team or organization (Silvia & Kashdan, 2009).

In summary, the published Merck (2016) survey, Kashdan (2015) argues, demonstrates that firms claim to ‘value’ curiosity while simultaneously restricting its encouragement. Therefore, suggesting a clear preference to maintain a position supportive of exploitation, rather than exploration. As such, the position is indicative of paradoxical tensions where, while firms recognize the importance of innovation, they have, however, a low tolerance for failure.

The dilemma

The dilemma identified within the studies of Gino (2018) and Kashdan (2015; Merck, 2016), relates to leadership support for curiosity, often associated with the process of generating novel and creative solutions (Kashdan, Disabato, Goodman, McKnight, & Naughton, 2018). Yet, the supporting empirical evidence offered in each paper suggests that leaders often discourage questions. However, existing scholarly evidence posits questions are a central trait associated with enquiring minds and fundamentally intrinsic to curiosity.
(Berlyne, 1960). The results from the Gino (2018) and Kashdan (2015) studies also postulate that leaders often lack trust in curious people because of a perceived increased level of risk associated with their inquisitive behaviors. Moreover, leaders argue curious people are more challenging to manage and are more likely to slow down the decision-making process and as a result, increase a firm’s costs (Gino, 2018). We therefore argue that a dilemma exists associated with the cognitive bias of leaders toward risk mitigation, at the disadvantage of encouraging ‘enquiring-minds’. Hence, limiting support for curiosity and consequently resulting in an unbalanced approach to deal with paradoxical tensions associated with curiosity and risk. In such cases, scholarly empirical evidence suggests that cognitive bias negatively impacts the effectiveness of leadership decision-making (Mazutis & Eckardt, 2017).

**Literature based approach**

We continue to draw on findings from the studies of Gino (2018) and Kashdan (2015) together with supporting insights obtained from the extant literature in the areas of; paradox theory, organizational leadership, organizational psychology, plus innovation and creativity theories. From these insights, we propose a conceptual framework which is based on a desire to understand better how leaders support curiosity when addressing the paradoxical tensions associated with a firm’s strategy. More specifically, when there is a need to balance the paradoxical tensions associated with perceived levels of risk (Slovic, 2013) while also providing support for encouraging enquiring and curious minds. Such strategic considerations are particularly relevant when problem-solving and attempting to produce novel solutions (Eylon, 1998). Subsequently, from this process, we identify key cognitive challenges relevant to leaders who require strategic flexibility and agility (Lewis, Andriopoulos, & Smith, 2014). Collectively, such rich insights provide a meaningful understanding of the top management team (TMT) challenges when strategically managing tensions associated with the generation of novel solutions. Therefore, this paper will identify the congruencies and dissimilarities of leaders when considering support for curiosity and risk.

**Key themes from case illustrations**

The notable theme in common between the Gino (2018) and Kashdan (2015) studies is the open discouragement of questions by a firm’s leadership to their employees. Yet, the
importance of questioning is a core competence associated with being curious and an essential capability for challenging the status-quo in support for seeking novel outcomes (Gino, 2018; McIntyre, Harvey, & Moeller, 2012). Likewise, drawing on the work of Hill et al. (2014) in their study of creative and innovative firms, where they argue that effective questioning together with robust discourse in an environment where psychological safety (Edmondson, 1999) is actively practised, leads to compelling novel and creative outcomes in support of innovation. Similarly, Rigolizzo & Amabile (2015), in their study, argued that organization environments where questioning was actively encouraged were more creatively productive in the pursuit of novel outcomes.

Yet, according to Hughes, Lee, Tian, Newman, & Legood (2018), the generation of creative and novel solutions in support of problem-solving often requires increasing levels of risk. In doing so, posing a paradoxical strategic challenge to leadership because of the tensions created between a desire to generate productive novel solutions, while at the same time attempting to reduce or eliminate risk (Smith & Lewis, 2011).

**Cognitive bias and paradoxical tensions**

We argue that the paradoxical tensions demonstrated in the Gino (2018) and Kashdan (2015) studies are influenced by leadership cognitive bias. We arrive at this position because within each study, leadership judgements are weighted in support of risk mitigation to the detriment of curiosity supporting behavior. In this context, a cognitive bias is defined by Haselton, Nettle, & Murray (2016) as “… cases in which human cognition reliably produces representations that are systematically distorted compared to some aspect of object reality.” (p. 968). Likewise, Smith & Tushman (2005) further posit “cognitive bias defines how managers understand a situation, seek information and make decisions.” (p. 526). Therefore, based on the insights presented in both studies, the suggested biases are the result of heuristics that have influenced intentional distortions associated with leadership decision-making (Tversky & Kahneman, 1973), more specifically, risk mitigation at the expense of behavior supportive of curiosity.

Smith & Tushman (2005) further argue the importance and relevance of balancing strategic contradictions associated with paradoxical frames, where leaders “recognize and accept the simultaneous existence of contradictory forces” (p.526). As such, ultimately leading to a position where balanced decisions can be made in support of producing novel and creative outcomes. Consequently, without a balanced approach to paradoxical tensions
leaders will gravitate to a safe position, based on what is known, without consideration for choice (Clegg et al. 2002) as such cognitive bias will manifest. The implication of such cognitive distortions suggests the balancing of paradoxical tensions will be denied and decision-making outcomes will not be optimized in the best interest of a firm’s strategic goals (Abatecola, Caputo, & Cristofaro, 2018). Figure 1 provides an illustrative representation of this manifestation.

Figure 1: The paradoxical frame for contextual questioning in support of problem-solving, together with the considered unbalancing implication of cognitive bias associated with risk.

The framework representation illustrated in Figure 1 shows a paradoxical frame to decision-making and commences with the TMT perception of the problem. From this perspective, problem-solving requires analysis of the problem in a systematic and timely manner to enable the discovery of appropriate and often novel solutions (Amabile et al., 2004; Yukl, 2013). Based upon this insight, Figure 1 outlines a path towards exploratory behavior, where people engage in a series of activities with the intent of gathering new information, generating and evaluating ideas relevant to the identified problem in an iterative
process until an appropriate solution is solved (Cromwell, Amabile, & Harvey, 2018). This scenario is illustrated in Figure 1 by the virtuous relationship between curiosity and contextual based questioning. Importantly, questioning is a prerequisite cognitive attribute of an enquiring mind associated with curiosity (Berlyne, 1960; Gino, 2018; Kashdan, 2015; Litman, 2005; Litman & Silvia, 2006; Silvia & Kashdan, 2009). Furthermore, the application of questioning in support of decision-making provides choices where the best options can lead to supporting the most relevant judgments and practical solutions (Golman & Loewenstein, 2012) – ultimately enabling leaders to discover novel outcomes in response to the identified problems (Bass, Avolio, Jung, & Berson, 2003).

The role of playfulness and contextual questioning

When considering an approach to contextual questioning that is supportive of curious minds engaged in the seeking of novel solutions, there is an inherent need to explore an often-extensive range of insights in the search for relevant knowledge (Boyle, 1989; Gino, 2018; Grossnickle, 2016; Litman, 2018; Mussel, 2010). To do this, we argue for an approach advocating the relevance and importance of “serious play” (Jacobs & Statler, 2006) as a process supportive of contextual questioning and aligned with curiosity. Serious play is defined as “a mode of activity that draws on the imagination, integrates cognitive, social and emotional dimensions of experience and intentionally brings the emergent benefits of play to bear on organizational challenges” (Roos, Victor, & Statler, 2004, p. 563). Notably, the concept of serious play leads to the discovery of meaning through the effective application of imagination, thereby supporting a requirement for a level of distinctiveness when there are ambiguous and undifferentiated outcomes in need of further exploration (Jacobs & Statler, 2006).

In this way, serious play provides an opportunity for the leader’s in firms to relax rules and encourage exploration (March, 1991). Taking this view, the concept of serious play provides a platform for a firm legitimately to explore for potential new opportunities relating to anything that is “humanly imaginable” (Sutton-Smith, 1997, p. 226). Hence, as a powerful strategic concept, serious play provides an ambiguous frame where “… if scenario-development processes were more playful in practice, then they might serve more effectively to develop the knowledge and skills that extend the adaptive potential of strategists and, thus, one hopes, the organization” (Jacobs & Statler, 2006, p. 82). In this way, serious play provides the means for the leadership of a firm to develop and challenge previously held
assumptions, build a sense of common purpose and subsequently generate new ideas through a process of effective discourse. In doing so, serious play enhances cognitive flexibility, which is an essential trait for the generation of novel and relevant ideas that otherwise may not be discovered through more conventional processes and practices (Heracleous & Jacobs, 2005).

**Contextual questions and rationality**

The juxtaposing pole to curiosity illustrated in Figure 1 involves the concept of risk, where risk is defined as “a characteristic of decisions … the extent to which there is uncertainty about whether potentially significant and/or disappointing outcomes of decisions will be realized.” (Sitkin & Pablo, 1992, p. 10), in support of creative activity (Dewett, 2007). Subsequently, further clarifying through the identification of three significant dimensions of risk, inclusive of outcome-uncertainty, outcome-expectations and outcome-potential (Sitkin & Pablo, 1992). The Figure 1 framework further illustrates how contextual questions are focused in pursuit of risk mitigating outcomes (Ford et al., 2003). Hence, contextual questions in this structure provide a rational means of clarifying and developing an understanding of the elements of risk consideration, prior to deciding what constitutes the most significant impacting risk issues. In this context, rationality in Western thinking is suggested to be a “model-based anticipation of consequences evaluated by prior preferences” (March, 2006, p. 202). From this viewpoint, rationality is regarded as being analytically rigid and lacking in support for creativity, because of its “limitation to what is already known, believed or in existence” in comparison to the imaginative expansiveness associated with creative thinking (p.203). In this way, creating a decision-making dilemma dependant on a choice based preference (Smith, 2014; Smith & Tushman, 2005).

Notwithstanding, scholars recognize the generation of novel and creative outcomes are a source of risk, requiring appropriate levels of consideration and ultimately choice (Dewett, 2007; Hennessey & Amabile, 2010; Simon, Houghton, & Aquino, 2000) often within a pre-set boundary of limitations (Henry, 2013). Therefore, in consideration of Figure 1, contextual questioning forms a virtuous rational loop with the intent of identifying lesser risk options and thereby providing a means to exploit known potential solutions and outcomes (Andriopoulos & Lewis, 2008; March, 1991). However, such an approach does not consider the paradoxical tensions associated with judgements that may be required when considering the relevant scenario implications linked to tensions associated with curiosity and risk. Most
notably, where curiosity-based outcomes may suggest greater value generating creative solutions are possible, at higher levels of risk beyond the initial pre-set boundary of acceptance (Henry, 2013). In such cases, heuristic judgements often provide the ultimate decision (Tversky & Kahneman, 1973). Furthermore, judgements that reflect a firm’s risk propensity are suggested to be a manifestation of the contrasting behavioral activities associated with the dualities of risk-averse and risk-seeking behavior (Sitkin & Pablo, 1992). From this perspective, curiosity and risk are indicative of both a strategic paradox and a dilemma where there is a need to make a choice often resulting in alignment to a firm’s goals (Smith, 2014) and where the cognitive frames of leadership maintain a balance of strategic paradox tensions.

A strategic challenge encouraging curiosity occurs when the cognitive frames of leadership are biased toward a position of risk mitigation, subsequently leading to an unbalancing of the paradoxical poles associated with curiosity and risk, as demonstrated in the cases of Kashdan (2015) and Gino (2018). Figure 1 illustrates potential cognitive bias in support of a risk-averse position subsequently leading toward maintaining the status quo. The potential implications of such biased outcomes are often associated with reducing firm performance and stifling firm growth (Pitelis & Wagner, 2019). Figure 1 provides a paradoxical frame indicative of firms that wish to be creative and ensure a dialectic position of balanced paradoxical tensions supportive of the emergence of an ambidextrous position associated with exploration and exploitation and where risk-taking and curiosity co-exist (Smith & Lewis, 2011), ultimately requiring firms to adapt to the instability and chaos associated with creative paradigms (Andriopoulos, 2003).

Summary: The role of playfulness and contextual questioning

In summary, the framework outlined in Figure 1 embodies the challenges for leaders who are required to balance ambidextrous paradoxical tensions associated with curiosity and risk. For example, should a risk-averse position be preferred, then an exploitation outcome is likely. Similarly, if leaders demonstrate a cognitive bias position toward risk aversion, then an exploitation position will result at the expense of novel outcomes. However, if curiosity, and therefore, curious behavior is encouraged without consideration for risk, then exploratory outcomes will be produced without a regulating control function associated with risk boundaries. Therefore, we suggest that the stance towards questioning can shape paradoxical tensions and how those can be perceived by TMT’s. We propose that the ‘context in
question’ (understanding the question) and ‘context for questioning’ (the perception of what the problem is) shapes tensions between curiosity and risk which consequently influences strategies for managing the strategic paradox. Finally, we posit that contextual questioning within a paradoxical frame can enable leaders to make the most effective decisions based on available knowledge. Consequently, this summary supports the work of paradox scholars (Andriopoulos & Lewis, 2008; S. Clegg & Pina e Cunha, 2017; S. R. Clegg et al., 2002; Lewis et al., 2014; Smith & Lewis, 2011) and argues the importance of TMT’s to ensure decision-making is derived from balanced ambidextrous paradoxical tensions (Andriopoulos & Lewis, 2008).

Ambidexterity and approaches to exploration and exploitation

The two studies discussed in this paper Gino (2018) and Kashdan (2015; Merck, 2016) exemplify the challenges associated with contemporary leadership. Such challenges are most notable when there is a fundamental desire for firms to explore and exploit opportunities and where there is a need for plausible novel and innovative outcomes that enhance firm performance (Smith & Tushman, 2005). Nevertheless, the ambidexterity hypothesis that is based upon the balancing of exploration and exploitation behavior within a firm continues to be the basis of ongoing debate (Raisch & Zimmermann, 2017). Notably, March (1991) argued that the contradictory strategic demands of a firm requires leaders to balance exploring and exploiting activities. To do this requires leaders to intensify their awareness and sensitivity to balancing and managing the paradoxical relationship between exploration and exploitation (Andriopoulos & Lewis, 2008). This approach is suggested to be essential because too much exploiting leads to increased levels of ‘traditionalism’ and consequently, limits exploration (Raisch & Zimmermann, 2017). Whereas too much exploration reduces business efficiency and the gaining of economies of scale and subsequently reduces the impact of heuristic learning (Smith & Tushman, 2005).

Nevertheless, the objective of leaders is not to resolve or overcome the contradictions associated with exploration and exploitation, but instead engage with processes that support efforts to learn, cope and work through a paradox (Raisch & Zimmermann, 2017). We therefore argue that when taken from a paradoxical lens perspective, the studies of both Gino (2018) and Kashdan (2015; Merck, 2016) are indicative of a potential paradoxical misconception.
More specifically, in the case of Gino’s (2018) study, a polarised view was demonstrated by leaders who had a reluctance to encourage behaviors supportive of curiosity, that would potentially lead to innovative outcomes related with exploration. Instead, the study suggests leader’s preferred lower risk options that encouraged exploitative behavior. Similarly, in the Kashdan (2015; Merck, 2016) study, most leaders interviewed suggested they encouraged curiosity-based behavior (exploration). Nonetheless, the study found a contradictory approach by leaders who discouraged questioning and preferred an authority driven organization to be more exploitative of available resources. We therefore argue that both studies are indicative of cognitive bias that inhibits a balanced paradoxical view. In doing so, we posit that for leaders to be comfortable with paradoxical tensions, then this would be reflected within their mindset and subsequently be manifested in openness to contextual questioning.

A paradoxical mindset is defined as, “a tendency to value, accept, and feel comfortable with tensions.” (Miron-Spektor, Ingram, Smith, & Lewis, 2018, p. 34). Some scholars further posit that a paradoxical mindset can be developed with the aid of supportive coaching, past experiences and reframing of required outcomes. In this way, an ambidextrous paradoxical mindset can lead to balanced paradoxical tensions and ultimately, to effective solutions (Lüscher & Lewis, 2008). In a similar context, scholarly evidence further posits the importance of cognitive flexibility, defined as “the ability to develop a justified point of view by adopting some arguments and rejecting others on a rational grounds” (Richter, 2011, p. 126). With reference to the outlined research studies, a flexible paradoxical mindset supports a leader’s ability to identify, monitor, control and categorize paradoxes (Keller & Chen, 2017; Redford, 2010) and in doing so make more informed choices between positions of exploration and exploitation without a cognitive bias to disproportionately influence their judgement (Andriopoulos, 2003), based on our extant literature review and empirical evidence presented in the scholarly papers by Gino (2018) and Kashdan (2015; Merck, 2016).

We argue the need for leadership to possess a paradoxical mindset that is cognitively flexible enough subsequently to provide a means of more effectively engaging with the tensions associated with curiosity and risk. To do this, will require leaders to think and consequently manage paradox from a metacognition knowledge perspective, where metacognition is defined by Nelson & Narens (1990) as “thinking about thinking – involves a monitoring and control component” (Redford, 2010, p. 248) and described by Keller & Chen (2017) as a method for an individual to manage their own thoughts and in doing so, influence their perceptions.
Summary of contributions and insights

This manuscript has explored a theoretical position by considering two recent studies, Gino (2018) and Kashdan (2015) together with the extant literature, as a means of gaining scholarly insights related to paradoxical strategic tensions associated with curiosity and risk. The specific focus of this paper has required applying a ‘paradoxical lens of clarification’ (Zhang et al., 2015) on leadership support for curiosity and thereby developing an improved understanding of emerging paradoxical tensions.

The key contribution and findings of this paper suggest that although curiosity is postulated as being fundamental to creativity and innovation, leader’s often do not encourage its application (despite overtly promoting the virtue of curiosity). Instead, there is evidence of discouraging questioning due to perceived levels of risk (Gino, 2018; Kashdan, 2015). It is further argued from the literature that paradoxical tensions require the cognitive models of leaders to be agile and flexible in their approach to the way they manage and consider complex strategic problems (Smith & Besharov, 2019). However, we argue from the scholarly evidence that leaders often form cognitive bias in support of risk mitigation and therefore provide limited effective encouragement for curiosity (Gino, 2018; Kashdan, 2015; Merck, 2016). Paradoxically, they do so at the risk of hindering effective decision-making and the development of novel ideas (Andriopoulos & Lewis, 2008). Moreover, we further argue how increased awareness of paradoxical strategic positions that require leaders to either exploit or explore decisions can enhance a firm’s performance (Lewis et al., 2014).

To explore and demonstrate these associated insights we have developed a supporting framework (Figure 1) that outlines an ambidextrous frame indicative of curiosity and risk, while also signposting the impacting position of cognitive bias (Smith & Tushman, 2005; Steele, Hardy, Day, Watts, & Mumford, 2019). Finally, we argue the importance of practicing contextual questioning in support of both curiosity and risk by utilizing virtuous loops (Fairhurst et al., 2016). Failing to do so may lead to falling into a rhetoric of questioning.

In the case of curiosity, we posit an approach supportive of serious play (Heracleous & Jacobs, 2005; Roos et al., 2004) as a way of motivating and inspiring the exploration of novel solutions. In the case of risk, where rational approach is associated with the exploitation of known opportunities. As such, the approach requires the mindsets of leaders to be cognitively flexible and thereby ensure a balanced paradoxical position is applied when identifying the best strategic ‘choices.’ In this example, resulting from considered curiosity spawned new
knowledge associated with exploitation or more rational choice related to risk (Keller & Chen, 2017; Zhang et al., 2015). In sum, the suggested framework, together with the outlined contributions, provide a fundamental insight into the question of questioning when dealing with paradoxical tensions and strategic decision-making.

Limitations and suggested further research

The noteworthy limitations of this paper are founded on its reliance on current extant literature and therefore, its dependence on diverse theoretical, empirical scholarly knowledge. Nevertheless, we have attempted to assemble the insights of leading scholars in the fields of organizational paradox, psychology and management theory. Yet, we do recognize the publication dynamics in these respective fields will limit the scope of contemporary knowledge presented in this paper.

Nonetheless, we do propose the following three questions as stimuli for further research to explore the implications and implementation of our proposed model.

1. How do leaders apply contextual questioning in an unbiased way?
2. How do leaders who perceive strategic paradoxical tensions between curiosity and risk encourage open discourse supported by serious play enacted through contextual questioning when problem-solving in search of novel solutions?
3. How do leaders who are unaware of the paradoxical tensions associated with curiosity and risk engage with contextual questioning?

Conclusion

In concluding, this theoretical paper has considered two recent studies Gino (2018) and Kashdan (2015; Merck, 2016) as illustrations of paradoxical tensions associated with curiosity and risk. Accordingly, we have applied a paradoxical lens to enrich our understanding of the relevant insights aligned with each of the studies. In doing so, we have identified the primary epistemological gap as leadership support for curiosity, resulting from leadership perceptions, including potential increased levels of risk from people engaging in exploratory questioning. However, we also note that questioning is an inherent trait associated with enquiring minds (Daniel Ellis Berlyne, 1960). Notably, both studies have provided insights suggesting that leaders were cognitively biased towards risk and consequently preferred a position of exploitation rather than exploration that is often
associated with curious minds. The identified key themes from the literature suggested that firms who actively encouraged questioning were potentially more creatively productive; nevertheless, this often requires support from leadership to increase levels of risk.

Based on such insights, we have produced a supporting framework, Figure 1, which illustrates the relationship between curiosity and risk and the corresponding potential exploratory and exploitive behavior. Central to the curiosity and risk framework is the identified need for contextual questioning where, in the case of curiosity, we argue the relevance and importance of serious play as a means of generating novel and creative solutions in support of exploratory behavior. Likewise, in the case of risk, contextual questioning provides support for a rational view and is aligned to exploitive behavior. Importantly, contextual questioning is viewed as an iterative activity in support of both paradoxical positions.

We also argue the importance and relevance of a paradoxical mindset, that influences how leaders think and react to paradoxical tensions. As such, a paradoxical mindset increases a leader’s awareness of tensions from a metacognition perspective. Consequently, metacognition provides a cognitive frame for leaders to better manage and understand their thoughts when categorizing, managing and controlling paradoxes. Moreover, enhancing a leader’s sensitivity to cognitive biases as a means of establishing a more balanced paradoxical solution when considering TMT’s perceived problems. Finally, we outline three questions for future empirical research consideration.

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