The holistic dilemma: Helping management students deal with risk

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ABSTRACT

Accumulating evidence suggests that business recognises its success depends on managing increasingly complex environments. Management educators and other stakeholders need to respond. To this end, we argue that a shared understanding amongst stakeholders concerning complexity and risk is both urgent and mutually beneficial. Ideally it would lead to collaborative design of curriculum and pedagogy and avoid overly narrow specialisation. We use the notion of ‘holism’ to explore the difficulties in comprehending the span of change in contemporary business, presenting ‘holistic risk’ as a vital but aspirational construct transcending boundaries, functions and disciplines. Specifically we address implications for teaching and learning holistic risk, for related program goals and curriculum design, and for embedding critical analytical skills into curriculum, arguing that students engage with holistic risk throughout the entire spectrum of problem-solving. Thus, educators must grapple with helping students in this effort. In support, we offer examples of our own practice in curriculum design and pedagogy. We conclude that the concept of holism might provoke a better understanding between educators and industry stakeholders concerning knowledge and skills to deal with risks associated with dynamic shifts in business environments. Such collaboration could help students operate more confidently in fluid, unpredictable business settings.

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In an increasingly complex, integrating global business environment, single disciplinary approaches to identifying and resolving business problems may not only be overly simplistic, but also misleading. From the perspective of research, the nature of knowledge and learning in such a business climate highlights gradations of integrated thinking in multi-disciplinary, inter-disciplinary and trans-disciplinary research (Max-Neef, 2005; Stock & Burton, 2011) emphasising the value of synergising diverse perspectives when trying to identify and solve problems. From the perspective of teaching and learning, synergistic and holistic learning is also valuable. For example, Avraham points out that teaching cross-disciplinary studies is “one of the most important and complicated issues in pedagogy, [despite the fact that] … there is a big need for courses that provide students with a wider view of the lateral connections between disciplines” (2006, p.1). Business scholars have acknowledged the significance of achieving holistic perspectives but they confront traditional barriers such as academic focus on in-depth mono-disciplinary knowledge, as well as a shortage of teachers with broad inter-disciplinary and trans-disciplinary skills, able to design and deliver relevant theoretical and practical content for integrated scholarship.

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Nevertheless, as complexity and ambiguity increases for employees at every level of organisation, research is recognising emergent knowledge creation processes, including the value of shared understanding across diverse stakeholders through dynamic relationships, interactions and interfaces connecting different knowledge areas and functions (Eisenhardt, Furr, & Bingham, 2010; Stacey, 2011).

This paper seeks to contribute to the debate on how educators might design curriculum that: conceptualises holism more effectively in business operations; assimilates a practical and theoretical understanding of holism in knowledge production and in problem solving in complex environments, as well as draws attention to the skills required for engaging with shifting situations, and emergent realities, opportunities and risks.

1. Achieving a common understanding around competencies to deal with more holistic thinking

Eliciting stakeholder perspectives around what are deemed necessary business competencies in increasingly volatile business environments often results in, at best, transient agreements requiring continual reassessment or renegotiation. As in all complex tasks, this fluid reality is characterised by tension and paradox, which themselves demand new competencies.

It is widely accepted that mastering prescribed managerial competencies will enhance job performance (Jackson, 2009), and that employers and business schools need to achieve some agreement around what these competencies are, as well as “broaden their vision of what is required of a high performer” (p. 85). Jackson also expressed concern that business schools lack “substantiated guidance on industry requirements”, suggesting that this lack of firm guidelines “is further aggravated in Australia by the absence of an active management professional association operating accreditation controls and membership eligibility criteria” (p. 85).

However, contra Jackson (2009), we suggest caution in seeking overly firm boundaries and guidelines from industry around competency standards. Rather, we support the development of ongoing and shared understanding of complex multi-disciplinary, multi-functional and shifting realities around necessarily tension-ridden stakeholder concerns, many of which focus on risk perceptions. We further suggest there is a danger in seeking certainty through defining competencies as static and technical, as in higher education narrow vocational competencies will no longer meet academic standards that demand capabilities to deal with complex and ambiguous environments. Rather collaborative, adaptive and open thinking is required, to support judgement and decision making in context. The Australian Qualifications Framework (AQF) specifies that graduates should develop cognitive skills reflecting mastery of theoretical knowledge, the ability to reflect critically on both theory and professional practice, and the capability to investigate, analyse and synthesise complex information, problems and theories (AQF, 2011). In identifying the need for students to acquire abilities to generate and evaluate complex ideas, it anticipates that students will emerge from their studies into a complex world where such capability will be a *sine qua non*. Jackson (2009, p. 85) embellishes this requirement by acknowledging that graduates are now expected “to add value to an enterprise, and ultimately the knowledge economy, entrenched in environmental awareness, social responsibility and effective diversity management”. Otwell and Macfarlane (2005) note an added difficulty is helping management students achieve such capability, given that they often have practical knowledge but limited educational skills required to appreciate the value of broad conceptual understanding in the overall learning experience. We therefore argue that taxonomies of management competencies could expand to include cognitive and behavioural skillsets underpinning shared conceptualisations of business dynamism across multiple and diverse stakeholders. In this light, more holistic perspectives will be increasingly valuable in creating shared understanding of both opportunity and risk in complexity, even if a perfectly synoptic view is untenable in practice.

‘Risk’ is a primary management focus, and with its basis in perceptions (Ansell & Wharton, 1992) its identification calls for holistic thinking and requires a shared understanding between business practitioners and academics, our society being arguably a “risk society” (Beck, 1992) in which a central project is the “risk management of everything” (Power, 2004). For example, in contemporary emergency services risk management, an “all hazards approach” (Blanchard, 2007) is gaining ground, subsuming risk mitigation focused on single hazards. This development might be indicative of the approach managers will need to adopt as they confront risk across a range of management fronts. Further, with risk management defined in ISO 31000 as the “effect of uncertainty on objectives” (International Organization for Standardization, 2009), it is not only hazards, but also failure to recognise opportunities in a global economy that can constitute significant risk. Students, therefore, need to learn how to build a sweeping perspective of risk – a more holistic view – and educators need to learn how to foster this development rather than persist in more narrow and functional approaches.

The remainder of the paper is structured as follows. It explores the nature of holism and its implications for knowledge creation that transcend boundaries, as a critical dimension of holistic thinking. Three interrelated processes seen as central to modern management, and supporting more holistic thinking in complex environments, are discussed, i.e. social capital building, integrating stakeholder perspectives, and applying psychological insights into collaborative action. On this foundation, the paper discusses the nature of critical analysis that might be effective in uncertain operating environments where holistic risk seems pervasive, before it moves to explore the implications for management education, exemplified through our own experience.
2. Risk, complexity and ambiguity: implications for educators

Increasingly, effective management of risk is challenged by a broad range of economic, environmental and social pressures requiring new forms of knowledge, governance and accountability. As Lacy and Pickard (2008) note, globalisation has presented industry with significant economic opportunities in addition to risks associated with “climate change, energy security, pollution, poverty and water scarcity” (2008, p.139). In many cases, these risks present in new or previously unknown forms, requiring innovative risk management strategies. So critical are these risks to organisational goal-seeking that some commentators have suggested that social, economic, political and technical risk need to be “mainstreamed into the entire organisation’s value proposition and strategic risk management paradigm” (Kytle & Ruggie, 2005, p.8). Therefore, the notions of holism and integration appear to be assuming a more central position in understanding the complexity of the business environment, including the knowledge and skillsets required to achieve it (Easterby-Smith & Prieto, 2008). On this basis risk needs not only to be central to business operations but also to management education intended to provide students with the intellectual and behavioural attributes (such as adaptive thinking) appropriate to business’ demands.

While ‘holism’ might be critiqued for its ambiguous and aspirational nature, such critique is in itself vulnerable to judgement for tending to prefer the part to the whole, and privileging narrowly defined and apparently stable conditions to the riskiness of the shifting contours of a broader business landscape. Against this background, we contend that global business dynamics and wider community expectations of organisational accountability and risk mitigation call for both educators and students to draw on integrated cross-disciplinary insights.

This seems already to be happening in public policy, administration and other management contexts, particularly in responding to increased complexity for public and private sectors alike. O’Flynn, Halligan, and Blackman’s (2010) comment:

Changes in society are driving major transformations and public policy issues are becoming more and more complex, even wicked … they are increasingly disrespectful of boundaries, and they are capable of metamorphosis, thereby increasingly requiring cross-boundary working to address them … Examples include pollution, climate change, health care, global terrorism, and natural disasters (2010, p.4)

Each of these areas requires the involvement and contribution of the public and private sector and the broader community to develop appropriate responses.

Working across boundaries in complex change is the modus operandi for the 21st century (O’Flynn et al., 2010). To operate more effectively, contextually and ‘holistically’ across boundaries, and across issues and problems that involve multiple stakeholders, managers need enhanced communication skills and knowledge, and those who educate them must adjust their thinking and their pedagogy. If managers wish to transcend and work across organisational, temporal and task boundaries they will also require abilities to identify key emergent opportunities, to coordinate with others in ways that support shared understanding of emergent problem sets and their associated risks, identify and facilitate synergies with key players, and, where necessary, help create relevant collaborative initiatives.

O’Donovan criticises business schools for their typically linear and simplistic approach to business problems and solutions. She suggests that as students develop intellectually “their ways of knowing become increasingly complex and relativistic” (2010, p.1). We suggest that the intellectual development of students might shift along the spectrum of absolute, transitional and independent knowing at an undergraduate level (O’Donovan, 2010) to that of a cross-disciplinary and more integrated ‘holistic appreciation’ at a postgraduate level. This learning objective would accord with the consistent feedback we receive from employers concerning the need for graduate skillsets that support collaborative thinking and action across diverse stakeholders. These skillsets are also identified in the business press, management journals and global business forums.

A more holistic appreciation of cross-boundary issues requires the ability to deal with ‘ambiguity’ and ‘uncertainty’, as a result of diverse interpretations of business issues by different functions, organisations and institutions, especially as such diversity of views can itself be a source of strategic risk. Alvesson (2011, p. 1646) affirms that “[p]ersistent uncertainty is per definition a part of the area in which most professionals and other knowledge workers are operating”. This reflects the complexity and ambiguity associated with these problems and underscores how hard it is to harness relevant tacit and explicit knowledge to inform cross-boundary understanding.

In his work on knowledge intensive firms, Alvesson (2011, p. 1644) points to risks in assuming certainty when knowledge is actually ambiguous: “...[m]any authors acknowledge that knowledge is very difficult to define, but nevertheless treat it as a robust and substantial capacity which can bring about “good results””. He identifies the tension between knowledge as ‘truth’ and “... a more pragmatic, process-oriented view on knowledge, emphasizing not what is true but what works”. In line with this latter view, decision makers need to recognise that knowledge sets per se, including both explicit and tacit knowledge, should be tailored to include the shared perspectives of salient stakeholders on anticipated outcomes, all of which might shift in the process of decision making. In other words, in decision-making processes, the relationship between power and knowledge should be recognised as having an impact on whether knowledge ‘works’ for a specific group of stakeholders, bearing in mind that the impact of power suggests that knowledge “... orders and produces rather than mirrors or gives us pure and innocent knowledge of the world” (Alvesson, 2011, p. 1645). Accordingly, complete knowledge sets to support cross-disciplinary and cross-boundary problem sets are aspirational, as is the notion of identifying holistic risk.

Thus, like infinity, which ultimately can never be reached but which has heuristic value, holistic risk can be a useful, albeit aspirational, concept in management education because it can signpost the importance of achieving a shared understanding and collaborative action amongst stakeholders. Business culture itself is heavily populated with lofty notions around
‘effectiveness’, ‘efficiency’, ‘outcome optimisation’, ‘competitive advantage’ and so on. ‘Holistic risk’ is similarly challenging from ontological, epistemological and pedagogical perspectives, all of which are not only intrinsic to an understanding of learning but also to the design of management education.

3. Conceptualising responses to holistic risk

Before advancing to a discussion of how holistic risk can be taught to management students, the notion of ‘holism’ is approached by way of conceptual exemplars that help explore collaborative contexts and associated behavioural dynamics. They illustrate the value of broader and integrated conceptual frameworks in investigating unpredictable organisational environments and the importance of considering risk more holistically, drawing from earlier discussion of knowledge management in boundary crossing that emphasises the importance of synergy and collaboration.

However, O’Flynn et al. (2010) note that collaborative activities carry their own level of risk, dependent on the nature of collaboration. They cite Mattessich and Monsey (1992) who categorise the risk as low in cooperative ventures which share information as needed; higher where coordination requires sharing risk through commitment to compatible missions; and, even higher in durable collaborative arrangements with common mission, new structures and shared planning and resources. All these forms of collaboration and associated levels of risk are increasingly prevalent as business responds to shifting notions of acceptable business practice. Mattessich and Monsey (1992) show that the level of risk in an operational context depends on the propensities of the players to increase different forms of reliance on others, considered against a background of varying levels of uncertainty. This has implications for attributes underpinning pedagogy, particularly learning outcomes associated with group work.

Social capital building (Woolcock, 2001) is discussed below, as are features of the interrelated processes of integrating stakeholder perspectives and psychological insights into collaborative action. Sustainability literature has highlighted the importance of these collaborative processes for improved social interaction and value creation across stakeholders, thus reinforcing the significance of pedagogies that help students deal with cross-boundary, cross-functional and diversity-based activities. Capacity for social capital building can be seen as a manifestation of students’ awareness of the need for more open and collaborative process to achieve holistic thinking.

3.1. Social capital building

The social capital building literature reflects a holistic and dynamic approach to addressing complex issues affecting managers in contemporary environments (and by implication, identifying associated risks). Woolcock’s (2001) model of multidimensional sources of social capital including bonding, bridging and linking forms of social capital is one example. Bonding social capital refers to intra-group relations or horizontal connections between individuals, groups or communities. Bridging social capital usually refers to developing links between communities or groups. A third category, linking social capital, is created through vertical interactions between institutions. This framework has been seen as helping explain human interactions in response to contemporary forms of complexity in economic, political and sociological environments.

Benn and Bolton (2011) ask whether social capital is a useful term, given that some writers have seen it as ambiguous, confusing and borderless. They conclude that there is plenty of evidence that its conceptual focus on “norms and networks that facilitate social action” (p.182) is increasingly valuable in complex organisational environments even if it is inherently ambiguous. Savoie (2011, p.8) also notes that the logic of social capital is not necessarily unidirectional in that it, “… can be both a source of opportunities for collaboration, and collaboration itself can be a source of social capital”.

The pressures for business to collaborate with other sectors to address issues that affect society globally are increasing, as noted by global business think tanks such as the World Economic Forum (WEF) and the World Business Council for Sustainable Development (WBCSD). The WBCSD (2010) ‘Vision 2050’ scenario suggests that business will collaborate with government and the community to meet the needs of an anticipated 9 billion people by 2050 “living well and within the limits of the planet” (Executive Summary, p. 1). Critical to this approach is that “New solutions will be based on a global and local market place … Business, consumers and policy-makers will experiment and through multi-stakeholder collaboration, systemic thinking and co-innovation, find solutions to make a sustainable world achievable and desirable” (Executive Summary, p. 2). The WBCSD statement is one example of a plethora of calls for a shift of business focus from wealth creation for shareholders to sustainable value for a broad range of stakeholders. Thus as Benn and Bolton (2011) observe, the concept is significant because

It makes apparent the interactions between economic, environmental and social actors, communities and groups, focussing on dynamics within groups, across boundaries and with formal institutions to develop an innovative capability to address emerging agendas. These initiatives might include micro and macro-scale projects between the state, business and civil society, leveraging from capabilities in different sectors and on different scales (p. 182).

Such interactions generate unique and shifting forms of risk and are therefore relevant to management education, which should help students identify and respond appropriately to them. Again the need for such capability is often partially articulated across stakeholders in management education. For example, industry asks for graduates who demonstrate innovative and resilient approaches to resource building through collaborative practice in emerging contexts which often present new
opportunities through new resource mixes. However, such partial expression can sell short students whose work experience will call for broader, holistic perspectives.

3.2. Integrating stakeholder perspectives

‘Stakeholder activity’ is another critical conceptual framework useful in clarifying interactions associated with social capital building, and contributing to the notion of holism in appreciating the nuances and risks associated with relationships across shifting groups with divergent interests in organisational agendas. This concept is also at the heart of a key challenge highlighted here: how we achieve a common understanding leading to action across stakeholders responsible for management education. Stakeholder theory is concerned with the nature of relationships between organisations and its stakeholders, i.e. other entities with a stake in the operations and outcomes of business activity (Freeman, 1984).

There is much debate about the notion of stakeholder theory, its content and more importantly, its relevance (Benn & Bolton, 2011). Debates have flowed around the categorisation of stakeholder activity (Carroll & Bucholtz, 2006; Donaldson & Preston, 1995); around which stakeholders have prominence (Branco & Rodrigues, 2007; Friedman, 1962; Mitchell, Agle, & Wood, 1997); the extent of the ethical obligation that business has to consider concerning stakeholder interests (Wood, 2008), and, more recently the role of stakeholder engagement in achieving competitive advantage while operating in the business–society interface (Porter & Kramer, 2011).

Theoretical contributions of this nature are critical to gaining a deeper understanding of the dynamics of interaction across disciplines and functions. Because of the complexity of the connections they analyse, such studies also reinforce the fact that narrow and easily measurable concepts are not always the most useful in exploring the nature of change and social exchange. This is true despite the superficial attractiveness of simplistic ‘solutions’ or insights, easily measurable lag indicators of processes and communication patterns, and associated quantitative forms of research dependent on the inter-relations of perceptibly stable concepts. In itself, this realised nature of the dynamic nature of issue identification and resolution for organisations has significant implications for educating managers around holistic risk at both a theoretical and a practical level. It is also the role of educators to help employers collaborate with them in business research and capability building to identify learning outcomes relevant to complex change challenges. A shared appreciation of more holistic management education might itself foster collaborative practice around increasingly sophisticated agendas.

3.3. Psychological insights into collaborative action

The discipline of psychology can provide additional insights into holistic thinking as a means of curbing risk associated with narrow specialist approaches, and helping individuals deal with fluid environments.

Practitioners increasingly endorse more integrated and holistic thinking (Jensen, Bergin, & Greaves, 1990) exemplified by the title of the Journal of Integrative and Eclectic Psychotherapy. As with holistic thinking in management sciences, in psychology there has been a growing consensus that common success factors transcend the boundaries and biases of different schools of psychotherapy. One example is Reisner’s (2005) identification of agreement across schools of psychoanalysis concerning the importance of the therapist–client relationship for effective intervention. Not only does this finding represent a form of holistic thinking across treatment boundaries, but also it affirms the value of establishing trust in tension-ridden and ambiguous therapy environments. Thus in the field of psychotherapy, it is being argued that the quality of relationship building in complex coping situations helps to predict success, regardless of the rationale or theoretical underpinnings of the various approaches taken. Such a finding has been reached through efforts to think more eclectically or holistically about what is shared across different schools of thinking, rather than what is immovable and ‘correct’ from a power-based disciplinary approach.

Similarly, in the field of management, trust is recognised as a foundation of both individual and corporate reputations and in dealing with risks to them. Increasingly trust is being seen as intrinsic to creating stakeholder culture and social capital building (Field, 2008; Jones, Felps, & Bigley, 2007). However, it is constructed not in isolation but as a linking characteristic of management relationships that transcend organisational departments, individual operations and stakeholder relationships and therefore needs to be modelled consistently across program units in management education in terms of content and delivery, e.g. through a trust-building focus in collaborative group work, which is essentially a form of holistic practice.

The psychological literature (e.g. Gifford, 2011) also offers other insights relating to the value of identifying individual behaviours that increase or limit risk in social processes. These include processes that create new and innovative forms of collaboration, and generate insights by viewing issues and associated risk holistically and in context. Gifford (2011) discusses risks associated with psychological barriers to behaviour change, in environments experiencing paradigmatic shifts that challenge existing cognitions of reality. Cognitive limitations that present risk include, coping with uncertainty, the undervaluing of distant or future risks, optimism biases and discrepancy and disrespect for views of significant others in context. Thus, an understanding of the psychological and social challenges associated with collaborative activity and integrative approaches might constitute an essential component of educating for holistic risk, as well as informing employers around effective culture building strategies and skillsets associated with their development.

The next section moves from identifying possible risks associated with failure to think holistically in complexity to focussing on the challenges of teaching ‘risk’ in business education.
4. Recognising risk: the essential nature of critical thinking

An associated and relevant debate in the IJME has been around the nature of critical analysis and thinking and its role in management education. Turner (2006) points to the difficulties associated with articulating how critical thinking is embedded and assessed in postgraduate curriculum. Waistell (2009) goes further in arguing that the dialogical process of metaphor encourages criticality of tension and paradox including stakeholder interests, power differentials and tension-generating inequalities within frameworks of management education that are traditionally associated with notions of rationality, productivity and efficiency.

Drawing from observations concerning the reflexive nature of critical thinking and pedagogy we suggest that pedagogy that aims towards ‘holism’ supplements the notion of criticality by expanding narrow interpretations of risk in the organisation, whether emanating from a power position, functional interests and biases or the politics of stakeholder interests. Thus we advocate opening up “the more ‘dialectical’ style of pluralism” (Grey & French, 1996, p. 10) to allow organisations to be critiqued from more than one dimension (Dehler, Welsh, & Lewis, 2001; Waistell, 2009). The urgency of opening up this level of critique is accentuated by the complex challenges around risk posed in achieving sustainable business practice in the current environment, especially as being appropriately accountable for negative externalities of resource usage requires a shared stakeholder perspective. Just as Waistell argues for the greater use of metaphor to expose dialectical tensions and environmental shifts, so we add the notion of holism as a means of exploiting and reaching a shared understanding of dynamic flows between certainty and uncertainty in risk environments, as a basis for shared understanding and action in context.

So, how might we communicate the notion of holistic risk? What are the implications for teaching and learning, for program goals, curriculum design, and embedding attributes such as critical analytical and research skills? As a starting point, interrogating the notion of ‘critique’ itself is apt, as it can help identify inappropriate instances of reductionist thinking that might impede holistic thinking. With this in mind some of the models commonly used in teaching business methods of investigation and decision-making warrant closer scrutiny.

Traditional and previously accepted models of critical thinking could be reviewed in line with employer concerns about the need for more adaptive and holistic thinking in graduates. Many of these models still attempt to categorise staged approaches to critical thinking in an effort to identify as issues the characteristics of the phenomena open to inquiry. The models identify assumptions, biases, reasoning, inferences, in some cases completeness of the argument and in most cases the critical evaluation of evidence (Edmonds, Hull, Janik, & Rylance, 2005) as elements of the frameworks they provide. Although these models are useful to remind management students of the need to think critically in complexity, they raise the question of whether, and how, such an approach can contribute to an evaluation of holistic risk for contemporary managers. For example, Gerras (2008) seeks to represent the process of critical thinking by identifying how different types of stimuli affect organisations or institutions that might or might not require critical thinking in context. However, the pace of change and complexity of context can be understated if one goes no further than differentiating between stimuli requiring critique and those that do not. Such an approach could itself benefit from further critique. Is there ever an instance when stimuli might not represent an opportunity for multiple levels of dynamic and contextual response? Assuming that any stimuli relate to stable phenomena is in itself risky.

It is valid to ask whether we can teach students that this degree of certainty any longer exists in business. Rather, should we not help students to critique all business initiatives, no matter how small or large, in a more holistic manner that acknowledges the potential and systemic impact of all components of organisational activity. As business educators, however, we are often pressured to produce discernible benefits from our curriculum through presenting apparent solutions based on simplistic uni-dimensional technical frameworks (often at the expense of broader critical thinking which emphasises contextual relevance). O’Donovan (2010) has previously discussed in this journal how undergraduates often approach university with the desire for absolute truths, hoping that staff will identify these and help them to learn, reproduce and apply them. At a postgraduate level many students still hope for and assert pressure to achieve the same outcomes, seeing them linked to performance and promotion. Sometimes demands on educators to respond can implicitly result in curricula promoting simplistic, prescription-based certainty. Such curricula are developed as if fluid marketplace phenomena can be ‘managed’ when in fact, it is clear – both from the literature and from the experience of professional practice – that we can only influence, not control these phenomena and their impacts. In discussing critical thinking, we may teach students evaluation techniques which they may assume can be applied as templates. But developing critical thinking that is adaptive and capable of productive encounters with the dynamics of sense-making in complex environments, is a different order of pedagogical dilemma.

This is evident especially when facing the challenges of ‘holistic risk’, which questions the notion of critical thinking itself through scepticism that critical analysis alone can confront the multitude of evolving business challenges in a risk society. While critical analysis can be based on a reductionist mindset that seeks to segment problems for the purpose of analysis and resolution, as implied by many critical thinking models and templates, categorising stimuli on the basis of process rather than systemic or holistic impact can hinder effective decision-making through overly narrow foci, thereby generating risks. Taxonomies constructed in this fashion can provide an illusion of comprehensiveness and stability, unwarranted by on-the-ground realities.

A reductionist approach is also the foundation of many risk management templates and standards. Such models are based on the idea that risks that matter are known. It is taken for granted that unknown risks are more likely than not to be
susceptible to management control by a standards-driven approach. Yet standards, while useful heuristic tools, fail to account for the fluid nature of many risks and can perpetuate inappropriate perceptions of certainty and stability that carry their own risks, because they may fail to account for the breadth of a given risk landscape.

Therefore, critical thinking models which suggest that critique is based on knowable processes often assume that certain stimuli for judgement do not require critical analysis and decision makers can operate on the basis of clarifying a position using judgement. Where critical thinking is deemed to be applicable, presuppositions often exist around the clarification of concerns as a starting point for exploring points of view, assumptions and inferences. Yet to apply such models and their assumptions as a framework for understanding and dealing with holistic risk can limit a manager’s field of vision, often appearing to underestimate the broad parameters of ‘bounded rationality’ (Simon, 1957) active in decision making processes as well as the transience of problems and solutions.

4.1. Questioning ‘given’ risk categories and divergent stakeholder perceptions

Given these levels of complexity concerning risk identification, evaluation and treatment, and associated approaches to critical analysis, both managers and management academics should question the taken-for-granted boundaries between categories of risk, and reflect on the implications of complexity for business management pedagogy, especially as they relate to the skills and attributes that future managers will require.

Husted (2005) differentiates between systematic risk, focussed on perceptions of the market and beyond manager control, and unsystematic or business risk occurring at the firm level and thus a concern of managers. This differentiation can work against holistic organisational thinking around risk through narrowly segmenting strategic thinking. Husted suggests that “[s]trategic adaptation by skilful, rigorous and continuous management of unsystematic (business) risk lies at the very heart of strategic management” (2005, p. 175) and thus potentially underplays the contemporary nature of broad-based stakeholder impact and associated risk.

Therefore, business management students not only require the skills to identify unsystematic risks with often less discernible indicators, address these and communicate them in establishing the perceived value of their organisations, but also to understand different risk perspectives among stakeholders as a precondition to achieving shared understanding. As educators, we ourselves need to conceptualise both the need and the detail of the skills and attributes graduates will require to achieve this increasingly essential capability. For students to operate successfully in a ‘risk society’ (Beck, 1992), relevant knowledge and critical thinking skills and mindsets – while essential – are, however, only part of what educators should seek to develop in their students. Recognition of dynamism in the business world, and an understanding of associated skillsets to deal with it, is also essential.

5. Knowable and unknowable risks: holding paradox and tension

In contrast to the assumptions of knowability and control underpinning risk management standards and templates, Beck (1992) suggests that risk imposes itself on people in anticipation of what has not happened. Therefore a strong element of the unknown is always present in the very notion of risk itself. On this basis, critical thinking in the risk environment must always deal with incomplete data. However, when it is translated into operational frameworks the tendency is to develop control systems on the basis of knowable risk that can be easily communicated. This may engender a non-critical and compliant training mindset which in itself may be risk-generating. In contrast, education around risk needs to jettison the training mindset and embrace analytical skills that push the boundaries of critique, as described earlier. So how do we conceptualise dimensions of risk and uncertainty?

Theoretical frameworks around social capital formation, stakeholder involvement and the psychology of collaborative activity in complexity have provided some insights, while alternative, cross-disciplinary and trans-disciplinary approaches to identifying problem boundaries (and associated risk per se) contrast with perspectives generated through narrowly defined disciplinary domains. Bolton (2013) has drawn attention to tensions associated with adopting a multi-disciplinary perspective. She argues that often misalignment of values can occur between the philosophical approaches and underlying ontologies associated with the different critical orientations within disciplines. In business contexts, the same tensions between functional areas can affect communication of risk assessments and treatment strategies.

The implications of these forms of miscommunication are that managers may fail to detect emergent vulnerabilities until they are faced with a “predictable surprise” (Bazerman & Watkins, 2004). Such omissions and myopia confirm Perrow’s (1984) theory of “Normal Accidents” in which different knowable factors can combine in unpredictable ways to create crises which managers may struggle to handle – or for which they may even be found to have been responsible. Part of their difficulty may be that factors difficult to conceptualise in perceived ‘normal’ operational environments, in which stability is not consistently critiqued for risk implications, can accentuate crises if they are not identified and addressed. In these circumstances of increasing complexity it therefore becomes even more essential to understand and critique the factors which help construct perceptions and mental models of risk (Morgan, Fischhoff, Bostrom, & Altman, 2002).

The notion of perceived risk is now well established in various literature and is considered to have significant explanatory power (Mitchell, 1999). Perceived risk is set against the idea of ‘objective’ risk, which has been critiqued from the early stages of research into risk perception (Bauer, 1960, in Mitchell, 1999). It is argued that objective risk does not exist (Stone & Winter, 1985, in Mitchell, 1999) although its theoretical existence has been suggested as a useful analytical tool (Mitchell, 1999). For
example, Quarantelli (2005, in Baker, 2009) argues that disasters can be defined as a social phenomenon, socially constructed and rooted in the social structure of the community affected by a natural hazard. Thus, as argued earlier in relation to the critical thinking models, it is even risky to identify categories of risk in a template format rather than perceiving it in context.

The model below is a starting point to explore complex dynamics associated with holistic risk appraisal and its implications for management education. The clouds in the diagram represent the ambiguities and uncertainties of various concepts of risk. They also symbolise the challenge of selecting viable strategies both in management practice but also, fundamentally, in pedagogy designed to help prepare students for a risk society. This model is developed in recognition of the fact that in understanding holistic risk, heuristic tools are required to help students conceptualise dimensions of risk and associated dynamics whilst avoiding the trap of deterministic approaches to risk identification and mitigation. The diagram is intended to embrace the complex and collaborative processes associated with, *inter alia*, the notions of knowledge boundaries, social capital, stakeholders and complex interpersonal relations described earlier. Specifically it identifies ‘knowable risk’ as a feature of organisational landscape and culture, implying that it cannot be dealt with without conceptualising it as an attribute of an environment characterised by pervasive ‘unknowable risk’. Thus in any context knowable risk is a transient and contextual phenomenon, which depends on the shared perceptions of the organisational actors.

In Fig. 1 below, unknowable risk is presented as a dynamic, fluid phenomenon defined in the moment and requiring collaborative alliances that have the capability of collectively identifying and managing risk in a transient and shifting environment. This requires new competencies and capabilities as yet nascent in many organisations and perhaps relatively undeveloped in many managers. Aptitudes such as anticipatory, normative, strategic and related interpersonal competencies, referred to by Wiek, Withycombe, and Redman (2011) as competencies for sustainability, are likely to be appropriate.

The issues captured in this model are presented as relevant to industry, considering its role as a vital stakeholder in management education. Recent literature recognises that strategic adaptation to risk should acknowledge its transient nature and respond accordingly, perceptibly acknowledging the fluid interface between known and unknown risk as identified in Fig. 1. For example, Kaplan and Mikes (2012) have identified that smart companies manage risks by adapting their strategies to the threats they face. Nevertheless the authors still appear to resort to a need for objective certainty manifest in organisational structure, employing a form of reductionist thinking when they propose a categorisation of risk that “allows executives to tell which risks can be managed through a rules-based model and which require alternative approaches” (p.50) for incorporation into strategy formulation and implementation.

Kaplan and Mikes’ (2012) rationale for this reductionism is that risk is “very hard to talk about” (p.51) because the challenges of risk are frequently seen as counter-intuitive to organisations’ cultural norms. Their prescription for successful treatment of strategic risks is to involve independent experts and facilitators who work with managers across departmental boundaries to identify and manage risk. However, in principle, this would pose a danger of quarantining risk to a specialist elite rather than enabling staff throughout the organisation to contribute to a broader appreciation of risk. Their model ignores or flies in the face of the resource-based view of the firm which has contributed to a better understanding of support for

Fig. 1. Educating students on the dynamics of holistic risk.
organisational capacity for change (in which risk management is seen as playing a greater role), in that it “recognises the value of a firm’s dynamic capabilities based on unique, emergent and innovative resource building and bundling in response to environmental shifts” (Benn & Bolton, 2011 p. 163).

Rather, the notion of risk should be considered as a means of sharing organisational understanding, viewing “… risk as a logic of organising in late modernity”, as Scott and Walsham (2005) describe it when discussing reputation risk. On this basis the management of risk is a primary organising principle integral to effective organisational design and operations. Managers, therefore, need a mindset that allows them to integrate the notion of risk with the realities they are experiencing in their own unique business settings. Acquiring such a mindset involves developing not only capability to operate organisational systems or to require compliance to policies, procedures and standards. Rather, it demands an attempt to envisage holistic risk as an organising principle that can be both formalised but also, and especially, adaptive.

Without such constant ‘adaptive’ capability, risk management systems will not deliver sustainable organisational outcomes. In the past, over-formalisation of risk has led to box-ticking for accountability. Under-developed formal structures can ignore signals of risks that might, if not attended to, generate significant future threats for the organisation. Thus formulaic approaches fall short despite best efforts. Managers, then, need to respond to risk flexibly in an increasingly uncertain world and their education needs to help prepare them to do this. In this climate mindsets and capabilities may be more important than acquired information based on a view of risk that is largely static and assumes that systems and power will produce order. This latter assumption is also inconsistent with an understanding of complex adaptive systems and processes and their contribution to effective business adaptation to complexity (Burnes, 2005; Olson & Eoyang, 2001) and with the development of strategic approaches required to navigate them successfully (Stacey, 2011). Kelly and Kennedy (2000) suggest that organisations that have a culture based on certainty and the ‘knowable’ find it very difficult to adapt culture to one which uncertainty is accepted.

6. Implications for educators

Management education, therefore, should help students deal better with uncertainty by conceptualising holistic risk as a fluid interaction of known and unknowable risk, critiqued through shared and collaborative stakeholder perceptions around the risk phenomenon. However, at least in Australia, there is little evidence of education being based around holistic risk identification and management. Rather, advanced appreciation of risk is often associated with technical skills such as in advanced financial risk courses. Thus, it is arguable whether existing curriculum or pedagogical models are adequate to provide either the professional or even the personal preparation required to allow students to critique existing risk frameworks. In similar vein, Crossman (2010) proposed a model of co-developed curricula between employees, educators and students concerning international and cultural education, highlighting the increasing relevance of critique in curriculum. Our own practice will be drawn upon here as a contribution to this debate.

In designing postgraduate business and management programs we heeded targeted feedback from leaders and managers across sectors who communicated their assumptions that graduates would have basic and requisite technical skills. However, they required graduates to have additional capability and resilience to adapt their skillsets and potential contribution to fast shifting agendas involving diverse stakeholder groups. A takeaway from this feedback was that typical business and management curriculum does not adequately take into account the importance of stakeholders in the critique of strategy making and implementation, and in the appreciation of risk in governance, with significant implications for requisite learning goals and outcomes.

At the level of postgraduate business and curriculum, this was addressed to some extent by embedding the theme of holistic risk across curriculum in the context of challenges to business-as-usual. It was embedded in operational units such as public relations and reputation risk, operations and supply chain management, and management within the public-private sphere. It was also a key theme in units around leadership, strategy, contemporary marketing issues and strategic finance. A concern raised by colleagues has been the tendency for students to revert to single disciplinary thinking in case studies or capstone units that implicitly require holistic thinking. Ideally, thematic curriculum challenges narrow disciplinary perspectives in every unit. A unit entitled ‘business analysis and risk’ specifically educates students to identify and integrate insights into holistic risk. It also provides opportunities to appreciate skillsets associated with multi-, inter- and trans-disciplinary analytical skills, as appropriate, making connections between conceptual understanding and skillsets and the ability to make relevant decisions through more open processes in dynamic environments, as a means of dealing with holistic risk.

In one Master level program, increasing levels of organisational risk are exemplified through a joint thematic approach between business risk and sustainability. Lenses through which holistic approaches to risk and more sustainable operations are viewed include; increasing accountability for management of ‘capitals’, i.e. financial, manufactured, intellectual, human, natural, and social and relationship capital (IIRC, 2013); national and global accountability for externalities; complexity and pace of change in business environments; corporate social responsibility; organisational design that supports stakeholder collaboration internally and externally and supports critique of hierarchically imposed problem and solution sets; organisational capacity for change and associated leadership and cultural influences; and, technologies as barriers to and enablers of more sustainable business practice. These programs have been operating for seven years attracting growing student numbers.
At an undergraduate level, focus has been given recently in business and management curriculum to developing appropriate critical thinking skills. For example, in the first year of a recently-designed management major, a new critical thinking unit has been included to help students value the importance of technical skills without creating ‘certainty mindsets’ associated with template-based management solutions with universal application, regardless of culture and context. In addition, a second year unit of study in a management major entitled ‘Business and Society’, introduces students to holistic thinking principles concerning the significance of stakeholder engagement in increasingly complex environments, as well as mindsets and frameworks for critique that can be used to inform further study including capstone units. Thus both content and skillssets support an understanding of holistic risk.

These approaches to curriculum are intended to equip students better to identify and respond to complex business opportunities and challenges as risks associated with operating in the business–society interface (Porter & Kramer, 2011). However, from a pedagogical perspective, we kept in mind the need for students to operate confidently in collaborative partnerships that rely on shared understanding of opportunities and risks, thus addressing the dynamic concerns and agendas of teams and stakeholders, requiring an adaptive and malleable mindset around risk (Husted, 2005; Story & Price, 2006).

As noted earlier, the process of social capital building which recognises “... the significance of relationships as a source of social action” (Nahapiet & Ghoshal, 1998, p. 242) is intrinsic to developing new and open approaches to knowledge creation and sharing with others from different sectors and disciplines, in the pursuit of better understanding of holistic risk. Pedagogically, this has required a focussed and clearly articulated approach to group and teamwork in building skillsets and mindsets amenable to building social capital relevant to task completion. This is in line with Ohaland et al. (2012) who emphasise the need to teach teamwork to fulfil specified real world challenges and scenarios. Towards this end students have been asked to consider implications of open process from disciplinary perspectives such as those of organisational design, organisational behaviour, strategic thinking and decision-making, intelligent leadership and stewardship; drawing upon reflective approaches to self and others in complexity. This approach has resulted in redesign of learning outcomes consistent with the AQF focus on critical analysis mentioned earlier. It has also demonstrated the need for new assessment approaches that legitimate and sense-make student investment in group process by addressing real world challenges, whilst maintaining a sense of natural justice that learning outcomes assess relevant knowledge and skillsets, in this case concerning capabilities around dealing with holistic risk in the workplace.

There are challenges associated with the design of thematic curriculum and pedagogical skills to appreciate and manage holistic risk. Bolton (2013) has noted that the developing trans-disciplinary and thematic curriculum, incorporating associated skills in social capital building, challenges academics and universities to invest in resourcing new knowledge and skillsets around more holistic thinking. Blackwell and Preece (2001) have discussed previously in IJME the challenges associated with the culture of academic individualism that prevents academics willingly sharing their own and others’ materials, an attitude that does not sit well with the philosophy behind thematic teaching.

Nevertheless, as argued here and as Walker and Black (2000, p. 1) have previously noted, there is a need for business school curricula that “can provide a broader and more integrated experience for business students”. Narrow and non-collaborative risk management can have significant consequences for the global community in relation to, for example, global warming scenarios, reinforcing the view that an understanding of risk also requires an appreciation of the value of collaborative activity to identify multiple insights into dynamic risk environments.

A major issue raised earlier, and one which is often at variance with the ontological principles underpinning management education, is that holistic risk management requires a culture of trust in complex and ambiguous environments. As business and management educators, Fukuyama’s (1995) observation is pertinent that in complexity it is often more cost effective for people to cooperate in identifying issues and finding solutions on the basis of shared values than it is to instigate complex rules, regulations and sanctions to administer transaction costs. Thus, in risk identification, mitigation and management, it becomes increasingly difficult to regulate taxonomies as a basis for regulating risk. There are broader implications of this finding across disciplines and within academic practice.

On this basis, students whose education has dealt with risk only in specialised and compartmentalised disciplines, functions and cultures rather than in team-based cultures in shifting contexts may be at a disadvantage when confronted with operational risk that is pervasive and not contained to specific sectors of a business or industry. While a holistic approach to risk is often equated with Enterprise-wide Risk Management (Prevosto, 2008), the perspective presented in this paper reaches beyond this organisation-centric view. It extends Power, Scheytt, Soin, and Sahlin’s (2009) analysis of reputational risk, as a logic of organising in late modernity, to that of risk per se: businesses are formed specifically to take risks in expectation of reward; they seek to mitigate risk in order to reap the anticipated benefits. Against this backdrop, student learning about particular risk dilemmas should be taught as a contextual phenomenon that businesses must perforce address.

One of the reasons why academic institutions may be teaching risk in academic silos is the diversity of discipline-based definitions of risk, producing a multiplicity of specifications with little common ground as to what constitutes risk and how to manage it. This disciplinary myopia tends to privilege field-specific notions of risk, leading to these being considered in decontextualized ways that fail to tap the rich resources of risk research available in a wide range of disciplines. We have identified here how we have attempted to introduce inter-disciplinarity into curriculum.

For truly inter-disciplinary pedagogy around risk to develop, curricula would, of course, need revision – possibly some radical restructuring – and universities would need to support the learning frameworks to foster the adoption of holistic perspectives. We advocate the design of thematic programs based on inherent linkages, rather than leaving students
(however capable they may be) to ‘join the risk dots’. Remaining in their more narrow and functional silos might provide them with apparent certainty, but not a realistic appraisal of business risk. It is hard to argue that organisations would not benefit from such employees capable of seeking relevant perspectives and buy-in to decision-making and accountability processes and outcomes.

Such an integrated approach seems increasingly significant as the pressures of a risk society multiply, making ‘complexity’ almost a redundant description of the Gordian knot of interwoven problems and disruptive change facing business. Creating capability for more holistic thinking in management education is thus increasingly relevant. In responding to employer needs we have to be prepared to move beyond the perception that education focused solely on agreed narrow competency standards helps students deal with these complexities. Sharing understanding of the nature of dynamic environments is a critical challenge for academics and employers and both have contributions to make. However, this will require creating new and ongoing forums or conversations in which common understanding might be achieved more rapidly about the fluid nature of change in organisations, and implications for new and emergent competencies and approaches required in fast shifting environments. In achieving this understanding it can be useful to apply what might be seen in scholarly environments as ambiguous conceptual frameworks. We add another framework to facilitate dialogue which is that of a dynamic understanding of risk from a holistic perspective. It is seen as an aid to facilitating discourse between stakeholders through highlighting the interface between certainty and uncertainty, or knowable and unknowable risk, as relevant to the attainment of a more holistic appreciation of risk, albeit aspirational. Such an approach also has implications for qualitative research towards this end. Exploratory research with business has potential to create common understanding of complexity, sustainability and risk, i.e. the new forms of discourse suggested here.

Therefore, educating business management students for knowledge-based outcomes, including knowledge of standard risk management procedures such as ISO 31000, is valuable but insufficient without enabling students to develop appropriate levels of critique. Rather, educators need to equip students not only with appropriate tools and techniques for dealing with risk but also an adaptive mindset capable of effective sense-making in complex risk environments where business sustainability may be at issue, thus also contributing to the development of appropriately resilient organisational cultures.

References


research and consulting interests include recognition and responsiveness to holistic risks in complex business environments; the shifting nature of corporate social responsibility; building social capital to support sustainable organisational design and practice; and adaptive strategy in multi-stakeholder contexts.

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