

Research Note**The Management of Sustainability: The Art of Interpretation**

Glen Lehman*

Abstract

The present paper introduces the art of interpretation to management accounting as a way to think about the natural world. A key aim of Interpretive Accounting Research (IAR) is motivated by a desire to understand how accounting disciplines such as management accounting might act in relation to pressing issues such as global warming, carbon emissions and sustainability considerations. IAR involves critical reasoning and invites us to rethink our response to dilemmas confronting communities and organisations. IAR emphasises the ability of citizens to rethink the structures and strategies allowing them to relate to the natural world. This leads to an argument that IAR adds philosophical insight into the discipline of management accounting using our powers of interpretation and perception to put us directly in the world. The issue for management accountants is to keep in mind the need to broaden and conceptualise how we theorise cultural and environmental dilemmas that confront the discipline. In accounting research, the art of interpretation is a method that encompasses our obligations to shareholders, the natural world and our society broadly conceived.

Keywords

**Interpretive Accounting Research (IAR)
Critical Reasoning
Management Accounting
Environment
Sustainability**

Introduction

The art of interpretation – or Interpretive Accounting Research (IAR) – involves critical reasoning and analysis to rethink our response to dilemmas confronting communities and organisations. Climate change, carbon emissions and sustainable development impact on every aspect of business and on our everyday lives (Rosenzweig et al., 2008). This paper uses IAR to critically reflect on how management accounting can contribute to an awareness of sustainability matters and concludes by suggesting that this approach will ultimately prove useful to the discipline of accounting as it responds to these dilemmas.

IAR is a particularly useful way to rethink the structures and strategies that allow people to relate with the natural world. This then leads to an argument that IAR adds philosophical insight into the discipline of management accounting as it relates to environmental dilemmas. The issue for management accountants is to keep in mind the need to broaden and conceptualise how we theorise cultural and environmental dilemmas that confront the discipline (Scapens, 2008; Willmott, 2008). In accounting and accountability research, the art of interpretation is a method that encompasses and extends our understanding about corporate obligations to shareholders and our society. For example, the accountant influenced by interpretivist ideals would consider issues of local culture and identity when implementing procedures to increase profit.

Interpretive Accounting Research (IAR) has developed over the past ten years revealing a gap in the application of these new ideas in the management literature. The present paper discusses, introduces and reflects on the contribution of IAR to these key dilemmas confronting management accounting as they relate to cultural and sustainability issues. For example, Laughlin (1995) attempted to provide a classificatory scheme useful for managers searching for ideas to enrich their appreciation of cultural, environmental and social relationships. As the demands for business behaviours (that are consistent with environmental and social responsibility, sustainable development and sustainability) increase (Hart, 1995; Elkington, 1997; Hawken

*University of South Australia

et al., 1999), businesses are tending to respond in a 'business-as-usual' manner which is being eschewed in favour of more enlightened forms of corporate behaviour promoted as good for stakeholders and the environment (from Milne et al., (2009): see Canziani et al., 2007; IISD/DT, 1993; Schmidhieny, 1992; NZBCSD, 2002-2003; WBCSD, 1998, 2000a, 2000b, 2002a, 2002b; WICE, 1994). The interpretivist framework can be used by managers to understand that procedure and technique are not the only tools at the disposal of the accountant and social scientist. IAR has gained increasing attention in the philosophical field and offers one distinct methodology for creating an appreciation of the cultural and environmental complexities in which accounting and management are practised. Accordingly, this paper has two main aims in offering management accountants a framework that incorporates Interpretative Accounting Research. The first aim is to explore how interpretation can be aligned with theoretical developments in IAR. The second aim is to reflect on the contribution of management accounting in debates concerning how organisations relate to issues of significance confronting communities (such as the natural environment). The criterion of sustainability is discussed to offer some ideas for management to determine whether it has achieved its objectives.

What is IAR?

Hugh Willmott (2008) emphasised the difficulties involved in defining Interpretive Accounting Research (IAR) and this has also been an issue that has also plagued the broader area of social accounting. The view presented in this article is that IAR engages and reflects on our attitude to management strategies using critical and moral reasoning. Importantly, IAR emphasises our intuitive sense of belonging in the world and it is worthwhile noting that this thinking has been in conflict with traditional approaches to the social sciences (of which management accounting is a component).

The argument in this paper maintains that the disciplines within accounting, such as management accounting, must begin to explore how to manage and interpret the world we live in. The argument is not simply about criticising current accounting and management policy, but questioning the current order of things and

searching to re-align our contexts, engagements and strategies with the indubitable processes of the natural world. As Willmott (2008) has observed:

Let me state my take on the identity of IAR. I start from the assumption that IAR lacks an essential identity; and, relatedly, that (necessary) efforts to provide it with such an identity are problematical and ultimately elusive (impossible). What does this lack mean or imply? I do not mean that when one examines what passes for IAR, it is found to lack some of the characteristics which have been authoritatively associated with, or attributed to, it (e.g. by Baxter and Chua, 2003; Chua, 1986, 1988; Morgan and Willmott, 1993). Nor do I mean that the criteria used to identify IAR 'do not clearly differentiate it from mainstream research', although I agree that any boundary drawn between 'mainstream' and 'interpretive' is arbitrary shifting and dogged by the paradoxes of 'othering'. (Willmott, 2008)

IAR illustrates that accounting is not simply a discipline, but involves the thinking process that incorporates many multi-faceted dimensions within the social sciences. These interactions occur with others both in organisations and in the natural environment. When management accounting is considered in the context of IAR, it then becomes clear that we need to consider our interactions and impacts on other cultures and also the natural world. Furthermore, IAR involves explaining what it seeks to negate in the theory of knowledge and understanding. Returning for a moment to Willmott's (2008) work, it seems that IAR is an open-ended approach to organisations and society. However, in social science research, IAR is becoming associated with analysing and questioning our reliance on procedural processes that limit how we interpret and perceive cultural and environmental values. As such, IAR interpretation is relevant to management accounting in the way it can broaden our appreciation of the management of sustainability. On this view, IAR offers a means to research and develop better relationships and interpretations. Table 1 (below) offers some of the insights from this strand of accounting research which is then applied to management accounting in Table 2 and 3.

Table 1: Strands of Interpretive Accounting Research

<i>Positivism</i>	<i>Hermeneutics</i>	<i>Grounded theory</i>
Defines the world as objects phenomena	Resists objectification	Accounts for processes that can change the coded “meaning” of observed
Objectification seeks Explanation	Seeks understanding	Seeks understanding based on the interrelationships between conditions, meaning and action
Objectification seeks dissection	Seeks respect for the whole	Avoids reductionism by using conditional matrices and transactional systems
“Truth” is to be “agreement” verification	“Truth” is revealed phenomenologically	“Truth” is approximated by the researchers’ creative engagement with by a systematic, iterative data collection, analysis verification and validation process.
Meaning is to be found in closed definitions.	Meaning is to be found through interpretation that allows future layers of explanation.	Meaning is to be found through interpretation that allows future levels and categories of interpretation

Reproduced from Parker and Roffey (1997).

The current purpose is to consider IAR in the light of recent work by accounting theorists such as Gray (2010), Parker (2005, 2007), Roffey (1995), Parker & Roffey (1997) and Willmott (2008) to whom the method provides opportunities to escape the limitations of procedure and technique. The critical dimensions in IAR allow us to rethink our response to dilemmas confronting communities and organisations which impact on business and everyday living. Parker and Roffey (1997) explored this dimension in their reflections on case-study research. It is worth recalling Parker and Roffey’s (1997) definition:

While grounded theory has a hermeneutic emphasis on understanding, there also remains a role for explanation. Interpretive research paradigms based on hermeneutic principles have as an integral component of their methods an interplay between the researcher, the subject and the socio-cultural context of the study. Understanding and explanation must be sought from the data relating to the specific context under study.

On this foundation a more general explanatory theory may be “grounded”, which should proceed beyond the a priori assumptions and subsequent “explanations” and “verifications” of positivist research. Table I (above) adds a grounded theory dimension (Strauss, 1987; Strauss and Corbin, 1990; 1994) to Roffey’s (1980, p. 6) hermeneutic investigation and positivist methodologies. (Parker and Roffey, 1997)

Extending the view of Parker and Roffey (1997) it can be argued that IAR is about engaging with disciplines – such as management accounting – in a way that places cultural, environmental and social issues as integral features of our thinking and practices. Interpretation incorporates our moral feeling and intuitions that are initially processed as our perceptions about the world. The discipline of management accounting can utilise these ideas in how we educate, research and teach management accounting. Thus IAR involves, but is not limited to, the following issues as outlined in Table 2.

Table 2: Interpretive Accounting Research in Management Accounting

<i>Grounded theory (Parker and Roffey, 1997)</i>	<i>Interpretation</i>
Accounts for processes that can change the coded “meaning” of the observed	A critique of the procedural approaches that dominate the social sciences
Seeks an understanding based on the interrelationships between conditions, meaning and action	Exploring the ethical environmental and moral impacts that organisations have on communities and environment
Truth is to be found in agreement by verification	Analysing the background, the key actors and values that shape our humanity.

IAR involves key features of our ethical and moral interaction as they impact on the discipline of management accounting now confronted with complex issues. These issues involve exploring ‘key factors’ associated with understanding and explaining our place in the natural environment. Cultural and economic factors, as well as regulatory regimes, influence the adoption or non-adoption of environmental or sustainable accounting in organisations. The dominant and traditional view of management accounting has been based on instrumental reasoning where the focus has been on supporting processes of financialisation and on maximising shareholder value. This view has been adapted and developed by social accountants to incorporate other stakeholders such as community groups, environmental lobby groups and employee reporting. The approach in this paper, therefore, offers management accountants a means to think beyond simply reporting to stakeholder groups but to engage and manage the processes of sustainability for current and future generations.

Instrumental, procedural and stakeholder thinking, however, neglects a full articulation of those factors that put us in touch with the natural world. That is, a focus needs to happen on not only grounding our management practices but also on exploring the interpretive principles associated with our interactions in the world. The view in this paper is that, management accounting can be further developed by using insights from IAR. This involves not simply providing additional information to shareholders and stakeholders, but also offering a broader way to engage with others and our significant relationships. For example, from the environmental and social accounting project it is argued that interpretation involves the provision of

additional data that provides awareness of corporate impacts on cultures and environments. Scapens (2008) offers some insights into how interpretation is relevant to management accounting. He observes:

For example, we might critique the technical and managerial solutions offered by mainstream accounting researchers or by managerial gurus and consultations, and comment on them, question or challenge them, and draw out the potential problems with their technical and managerial solutions. Alternatively, we might want to undertake a more fundamental social critique; drawing out the social and political consequences of accounting in modern organisations, and in society more generally. (Scapens, 2008, p. 917)

Scapens’ examples illustrate that interpretation is about challenging, critiquing and commenting on the processes being used by management accountants. Furthermore, from IAR it becomes clear that much of the problems associated with the state of the environment is associated with understanding the connections between economic activities and sustainability. Moreover, there have been calls for a review of the ‘economic’ standards that now define and measure much of the planet’s need for resources. Here it is worthwhile recalling a definition from the philosopher, Charles Taylor (1976), who explored connections between environmental, moral thinking and the art of interpretation. Taylor (1976) argues that we need to think more broadly to see behind the layers of procedure that institutions such as accounting can impose on the economic and social sphere (1978; 1989). He then points out that this engages our thinking at a deeper level and invites us to think about why we rely on procedural reason. Moreover, interpretation

engages us to consider the forces and values that procedure submerges. This is what makes it uncommonly difficult to reflect on our fundamental evaluations in the natural world, because our current corporate strategies rely on the corporation as an agent of change.

However, the barriers to change are profound, so are all the distortions and repressions that have submerged a full examination of our place in the natural world. From philosophical quarters, writers such as Charles Taylor (1976) have argued that this makes us resist change even when we examine our current predicaments. Taylor (1976) continues:

Some of our evaluations may in fact become fixed and compulsive, so that we cannot help feeling guilty about X, or despising people like Y, even though we judge with the greatest degree of openness and depth at our command that X is perfectly all right, and that Y is a very admirable person. This casts light on another aspect of the term 'deep', as applied to people. We consider people deep to the extent, inter alia, that they are capable of this kind of radical self-reflection. (Taylor, 1976, pp. 298-299)

The utility of Taylor's (1992a; 1992b) work on the role of interpretation involves how we can make arguments and provide new strategies to improve the quality of life. For present purposes this involves appraising the dilemmas between environmental values and how standards of living are shaped by economic motivations (Dreyfus, 2004; Hardin, 1980). In particular, the art of interpretation (IAR) emphasises our powers of perception which then offers a broader understanding about how our communications can put people in closer relationships. For example, Taylor emphasises the role of perception which involves ethical dimensions in engaging with other approaches – such as an exclusive focus on markets and the business case – as the preferred means to solve social and environmental problems (2000; 2001a; 2001b; 2004). The challenge for management accounting is to think about how these issues could be integrated into the processes and procedures used to control and manage organizations. This would involve thinking holistically as opposed to searching for new ways to maximize profit; in part, this interpretive way of thinking requires new subjects, ideas and strategies to be taught within universities and management courses.

Instead of a complete focus on profit and procedure, there is now a critical need for accountants to think about these issues in every facet of their activities (Gray & Bebbington, 2000; Gray, 1992, 2001; Lehman, 2007a, 2007b, 2009, 2011). For example, if I am a management accountant confronted with designing new sustainability and management systems, I need to be able to re-think what is significant. At present, I might enter an organisational environment thinking that “more money needs to be made with less cost”. In constructing procedures to achieve this goal, I may lose sight of other key significant issues, such as the impact on the natural environment. While interpretivist methodologies are in their infancy, the example illustrates the challenges involved when thinking about traditional profit approaches.

Management accounting has the potential to integrate these developments into the teaching of the discipline and corporate organisational structures, exploring how our understanding of the world can be developed by management decision-makers. Often these trends are supported by international accounting standards, organisational standards and other multi-lateral trade initiatives to facilitate the flow of capital. But recent research suggests that local dimensions such as regulatory structure, culture and economic development must also be given consideration when designing accounting, management and reporting systems to relevant publics (Gallhofer & Haslam, 2003; Lehman, 2006, 2011; Yusoff, Yusoff, and Lehman, 2007).

IAR & Sustainability

The journal of Henry D. Thoreau offers one way to think about how to interpret the world in which we live (1962). He reflects upon and explores the value of the natural world as a means to extend our appreciation of our place in the world. From Thoreau we learn that interpretation is about seeing and building sensitivity and respect for the natural world. David Brower expands these concepts by explaining:

For there is no science and no art of greater importance than that which teaches seeing, which builds sensitivity and respect for the natural world, a world that "has visibly been recreated in the night." A natural world thus

cherished will always bring" mornings when men are new-born, men who have the seeds of life in them." (Brower, 1962 in Porter, 1962, p. 6; quoting Thoreau, 1962)

Thoreau’s work can be seen as a metaphor for the relevance of IAR in the manner it searches to consider the inter-disciplinary complexities between procedural accounting and the management of sustainability. Furthermore, the issues of sustainability, as enunciated by Bruntland Commission Report (1987), Garnaut (2008) and Stern (2006) and subsequently developed by Gladwin et al., (1995) highlighted the need for urgent changes at both

government and industry levels if planetary eco-systems were to be stabilized. On the view that this paper has been exploring, IAR shares with the broader scope of management accounting the capacity to construct ‘tools of integration’. This will help to understand not only economic performance but also the embedding of qualitative structures to better understand our place in the world. This is in contrast with the primary focus of much sustainability research that has focussed on quantitative financial reports and the type of information they provide (or do not provide), and the role they need to play in a sustainable world.

Table 3: IAR & Environment

<i>Interpretation</i>	<i>Interpretation and Environment</i>
A critique of the procedural approaches that dominate the social sciences.	Considering how organisations impact on the natural environment.
Exploring the ethical environmental and moral impacts and action that organisations have on communities and environment.	Exploring the social and environmental audit at the community level.
Analysing the background actors and values that shape our humanity.	Exploring how the environment shapes all levels of our activities in the world.

Applying IAR to environmental and sustainability research has made it increasingly clear that human populations put pressure on fragile eco-systems and declining natural resources at a rate much faster than ‘science and technology’ can provide solutions. This concern has led to the notion of ‘sustainable development’ initially used by the World Conservation Strategy (IUCN et al., 1980) and subsequently popularised through the Brundtland Commission Report (1987), where it was defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. On this view, the implication for management accounting is similar to the challenge facing traditional social science, which recognises the underdeveloped state of research into sustainable and just economies. The practical relevance for management accountants would be informed by environmentalists, such as Thoreau, who urges all citizens to build sensitivity and respect for the natural world (1962).

However, although governments have acted to encourage sustainable development, recent research acknowledges that changes at the

industrial level has not occurred (Milne et al., 2009). IAR attempts to move beyond simply criticising current practices and processes by offering to develop a moral appreciation to create broader relationships and commitments than current economic, management and political structures have developed. For management accounting the implication is to develop a reflexive approach; the reflexive approach examines our current practices that have simply focussed on maximising profit and creating relationships that led to the best deal for ourselves.

Gray (2010) has looked at and compared both current and proposed financial reporting methods, to critically assess whether any will provide the type of information that will confront or possibly change planetary sustainability. This present paper involves offering the discipline of management accounting a philosophical way to extend our accounting and management disciplines. IAR incorporates an explicit moral and philosophical sense that we are stewards of the earth. We are not simply isolated accountants searching for the best deal for ourselves and

not simply managers trying to maximise outputs for corporations.

The argument in the present paper, therefore, rethinks management accounting and its connections with sustainability to create better relationships within organisations and with the natural environment. Arguably, IAR has the potential to put organisational theory in a position that maintains that how we think about the world must be broadened from simple conceptions of procedural decision-making and economic-growth assumptions. Furthermore, from sociological theory, IAR can be informed by ideas from linguistics and communicative theory to consider how to inform and interpret the direction of our relationships with the world (see Laughlin, 1987). The issues associated with IAR are connected with the wider social accounting project that considers how accounting is related to issues associated with climate change, global warming and pressures on scarce economic resources. Broadly constructed, IAR asks us to reflect on the impact these factors put on companies, communities and societies. All these issues pose questions concerning how humanity interacts and manages the natural environment. The current accounting preference for a business case and more procedure at the expense of interpretation leaves management accounting seriously under-theorised.

From the above, IAR provides new ideas to balance growth and environmental harmony by disclosing new ideas and fusing different cultural and social approaches. After all, it was not that long ago many believed humanity could control and dominate the natural environment. On such a view, communities have the potential to grow, while assuming that the natural environment has the ability to accommodate these initiatives. In this sense, IAR creates an appreciation that environmental and social factors are of such critical significance that the accounting profession must address who might determine what these issues are, and how might they be implemented? From IAR, the question then becomes one associated with the impact of existing cultural and economic forces on decision-making process, and how democratic those processes are.

The literature on the economics of sustainability, however, has not fully considered that compromises between growth and preservation of nature may become a necessity.¹ This is an issue that the wider work on the art of interpretation brings clearly to the forefront of our thinking. That is, to protect and recognise the values in the natural world requires a totally different way to govern, manage and recognize modern communities. Furthermore, there exists limited work on the relationship between what are steady-state communities and the criterion of sustainability. Can the role of the management accounting be developed to assist the wider social science debates in these areas?

Here the work of Gray (2010) shows that it is possible to begin to reconsider and re-imagine new political ways to engage and manage the natural world. IAR involves understanding the complexities of the world and the future of modern communities which accounting is designed to inform. IAR, therefore, is a narrative approach that offers a way to rethink research concerning sustainability and the greening of democracy. The role of environmental theory has been subject to critical insight and deliberation. This ongoing debate involves humanity's exploitative relationship with the natural environment. From IAR we learn to ask: is there more than this? How are we to manage our business relationships that are being shaped by cultural and ethnic differences? Can management accounting change course to integrate these developments into its lexicon?

Environmental Values

The dominant management view currently is that developments in human understanding, particularly scientific knowledge and the associated technological innovations, can overcome all barriers including natural and environmental values. However, many accounting commentators on these issues have argued that this view is not only linked to, but a product of a growth-oriented society and modern science (Hopwood, 2009; Hopwood et al., 2005; Ratnatunga, 2007). Yet the management discourse has remained largely

¹ Recently these issues have been considered by Arias-Maldonado (2007) and Lehman (2011).

shaped by the dominant economic logic of financialisation – the business case – which gives rise to a key research for accounting theory (see Table 4). Here IAR involves utilising the accounting method to examine and interpret the extent to which corporations have

reserves to implement these sustainability schemes. This is reflected in Table 4 which involves extending the management function to determine whether the business case strategy is viable within that corporation.

Table 4: The Business Case for IAR & Sustainability

<i>Business Case</i>	<i>IAR and Sustainability</i>
Developing EMA systems in the organisation	Management to embed environmental values throughout the organisation.
Managing through Procedure to verify EMA	All levels in the organisation required to examine impact on the environment.
Value Chains and Management	Liaise with local cultures to explore their conception of value
Connections between Profit & EMA	Interpret the role of the organisation in community.

From Table 4, the following **key** challenges become important to the accounting profession as it aims to interpret and manage what accounting can, and is, doing for sustainability. The environmental factors confronting the management accounting are:

1. To understand how environmentally sensitive industries are motivated by context-specific local factors that could lead to the successful implementation of environmental accounting and management.
2. Isolating the local and management factors that would lead to the successful implementation of environmental accounting between diverse economies.
3. Determine the extent to which the current financial crisis has hindered environmental accounting projects (in key corporations) and examine the need for new governance and regulatory structures to create ecological understanding.

Challenge 1 involves understanding the accounting profession's attitude in different economies toward sustainability, international accounting standards and those local factors that are deemed to be of significance. The second challenge involves exploring the utility of international accounting standards and other global environmental initiatives and examining the regulatory structures for sustainability reporting to establish positive outcomes for Corporate Social Environmental Accounting

Research (CSEAR). While the third challenge reveals the tension between cultural, local and regulatory objectives surrounding CSEAR under conditions of financialization as part of the regulatory analysis. The argument involves developing a “synthetic” model of corporate governance to assist management accounting in addressing the challenges enumerated in the three challenging areas. This is not to impose new forms of regulatory commitment in the form of more financial and physical reporting but to explicitly alter our attitudes, strategies and structures to modify corporate behaviour towards CSEAR. In particular, IAR can prompt consideration concerning how to prioritise the three challenges (above) that have been offered as models of social, environmental and sustainable reporting (SEA). Gray's (2010) analysis of the current model, which he describes as the ‘business as (almost) usual’ approach, suggests that its profit-centred selective reporting ends up submerging environmental concerns. The non-nuanced business case is, therefore, unlikely to lead to any significant change in corporate and management thinking.

However, it may be possible to involve a conception of civil society that utilises this information in the quest to create a discourse and narrative that informs communities and the broader society. Gray (2006) explains:

The approach seeks to grow beyond the current standards of the Global Reporting Initiative (GRI) and, probably, envisages a

form of reporting to which the GRI might eventually aspire. The approach tends to recognise that current emphases and balances within society are probably inimical but also seems to believe that whilst we may need to reform organisational emphases and perhaps even the structures and governance of organisations, the basic systems of economic organisation are probably satisfactory, salvageable and reformable. (p. 804)

It is for this reason that in the wider social sciences the art of interpretation involves extending the accounting method to not only sustainability reporting but how we can embed these values throughout the corporation and its organisational structure. From the interpretivist perspective, it is worth remembering that the ecologically and eco-justice-informed approach to accounting and management was founded on two principles. The first is the need to establish whether an organisation (or industry) is socially and environmentally sustainable. The second is the need to establish the level at which reporting must occur; that is, should the level of reporting be at the organisation level, or should it be based on regions, ecological regions or local eco-systems? And to understand these two principles it is necessary to establish an organisation or industries ecological footprint, and how it might be reduced to potentially sustainable levels.

Thus, in the broad sense the question may be reduced to one concerning how interpretive accounting research can align management and accounting with broader social science research on sustainability. However, before we can confidently put forward realistic accounting solutions to environmental and social problems, management accounting research will need to develop more substantive data sets such as the stand alone reports and national social data. That is, the discipline of accounting can contribute to the active design of research questions motivated by the desire to facilitate change. Despite the implementational difficulties with IAR, it is clear that corporations and management accounting need more perspicuous and imaginative social accounting research solutions.

As environmental accounting and its connections with the discipline of management

remain under-theorised, the challenge is to analyse the reasons why corporations choose to, or choose not to, report environmental information. If management chooses to implement and report on these initiatives it is then necessary to examine the extent to which the organisational structure embeds these values. Management accounting needs to examine their commitment to changing their attitude towards the environment and consider broader ways to think about the world (on the view in the present essay, the concept of the world relates to core beliefs and attitudes toward the natural environment, others and future generations).

Finally, IAR can assist the role of sustainable reporting by identifying and examining those areas which will amplify how accounting might contribute toward a green and just society. For example, interpretive accounting research can be used to examine the benefits of a carbon-trading scheme but there has been limited analysis, interpretation and assessment of this direction. Humanity is confronted with a choice in that it has the power to radically transform the planet for economic purposes, or to synthesize our lives in accordance with the ecosystems in which we live. One wonders, however, whether sustainability reporting is likely to achieve the aim of aligning humanity with the ecosystems it operates in. As Milne et al. (2009) have explained, the analysis and discussion of the dilemmas implicit in environmental accounting must be analysed and given an interpretation. Milne et al. (2009) undertook a set of in-depth case studies into corporate environmental discourse. They compared and contrasted the New Zealand Business Council on Sustainable Development (NZBCSD) and its founding members finding that its explorations into sustainability and sustainable development, as originally articulated, is firmly embedded in ecological modernization. Milne et al. (2009) examined the business case for environmental protection and resource conservation through means of eco-efficiency and stakeholder engagement. Based on a wide and contrasting paradigmatic framework of development and environment, they suggested that the NZBCSD's (2001) original discourse was weak and serving relations consistent with dominant economic ends rather than protecting the environment. They continue:

We suggest from our perspective that the NZBCSD's discourse may reinforce rather than challenge the status quo. Business dominance, economic logic and management are perpetuated while presented as alternative and 'middle-way.' Based on our analysis, such an approach appears substantively little different from conventional business approaches (McDonough and Braungart, 1998, 2002). Some members of the NZBCSD were absolutely clear they must remain financially sound and foster the means of their own growth and renewal, and that this was absolutely essential to achieving other social and environmental goals (see Livesey, 2002). Given the recent and expanding nature of the NZBCSD's membership, it remains possible that the core and founding discourse has become yet further diluted among more conventional understandings. Further research could help determine the remaining strength and trajectory of the NZBCSD's founding discourse on sustainability. (Milne et al., 2009)

Thus, Milne et al. (2009) results of a 'content analysis' approach to investigating whether there has been a true shift toward a 'more sustainable' future suggests that 'the trend toward sustainability is 'more rhetoric' than substance' (Milne et al., 2009, p. 1213). IAR, particularly given the background material provided by Milne (i.e., the research by Gladwin et al. (1995) who outlines the basis for the components of a 'sustainability survey') is an empirical one. IAR must not only measure the intent of the organisations to engage in sustainable practices but also examine the differences in levels of engagement across countries by culture and also by industries.

In addition, accounting already has many systems and processes developed to moderate impacts on the environment, but the question is whether they are fulfilling their corporate social and environmental objectives. For management accounting the key challenge is to explore what accounting is doing, and what it could be doing for sustainability. The challenges confronting accounting and management accounting are to: (a) develop an appreciation of these inter-related drivers concerning the adoption of environmental management accounting practices, (b) create an ethical and interpretivist account of how

high-profile companies are tackling ecological issues, and (c) utilise these factors to model general guidelines and criteria for designing appropriate governance and accounting standards (sensitive to different cultures, values and regulatory systems). These theoretical insights take us towards an appreciation of SEA while being sensitive to different cultures, values and regulatory systems.

Conclusion

This paper was motivated by Willmott's (2008) work on Interpretivist Accounting Research. His work was used to explore and understand the possible role of management accounting in the area of sustainability research. My paper emphasised a need to utilise our full range of moral and perceptual skills to construct better ways to interact with the natural world. The practical implication is that management accounting needs to teach and research the area of sustainability in all aspects of its operation. I argued that IAR is relevant to management accounting because it provides a theoretical means to re-theorise how management accounting can provide strategies to integrate sustainability into all areas of the organization.

The argument advanced was theoretical and sociological in the manner it attempted to realign organizations with the natural environment. It was necessarily theoretical because current research and practice have offered only instrumental justifications for management procedures. The conjunction of IAR with management accounting was reliant on Parker and Roffey (1997) because they were leading theorists in rethinking the scope of organizational relationships. In emphasising the role of IAR, issues associated with culture and the environment become central to the management accountants' strategic vision. The practical relevance of IAR is that it emphasises how we can negotiate and contextualize issues of significance that confront organizations. It challenges the profit centred focus that leads to procedural approaches to sustainability and management. The procedural and technical trends that were a focus in the present paper are supported by international accounting standards, organisational standards and other multi-lateral trade initiatives. IAR has examined how these

trends facilitate the flow of capital throughout the world, but recent research suggests that local and specific factors such as regulatory structure, culture and economic development must also be given consideration when designing accounting and reporting systems. The key aim of the paper was to invigorate our appreciation of the natural world and report to relevant publics. The task for the discipline of management accounting, then, is to consider how recent changes to accounting practice may not reconcile with the underlying cultural and social factors that must be given recognition in the management of, and construction of, viable environmental and managerial strategies for change.

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